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SCIENTIFIC INFORMATION REPORT
CHINESE SCIENCE

(47)

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W A R N I N G

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C-O-N-F-I-D-E-N-T-I-A-L

SCIENTIFIC INFORMATION REPORT
Chinese Science (47)

This serial report contains unevaluated information prepared as abstracts, extracts, summaries and translations from recent publications of the Sino-Soviet Bloc. Individual items are unclassified unless otherwise indicated.

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C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

ABSTRACTS

"Acta Meteorologica Sinica" (Chi-hsiang Hsueh-pao)

YEH Tu-cheng (5509/4648/2973)

"Some Aspects of the Dynamics of Disturbances in a Wave-Shaped Basic Westerly Current"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No 1, Feb 64, pp 1-9

Text of English Abstract: A purely zonal current is very rare in the atmosphere. In the mean maps, planetary waves are very clear. These mean waves indicate that in the atmosphere there exist large-scale disturbances whose geographic positions are very fixed. The analysis of the spectra of the atmospheric waves proves this inference. Thus the basic state of the atmospheric circulation should be a wave-shaped westerly current, but not a purely zonal one. This paper thus investigates the dynamics of disturbances in wave-shaped westerlies. The equation for the disturbed motion shows that in such a basic current the disturbances of different wave lengths mutually interact. This does not happen in a purely zonal basic current.

(continuation of Ch'i-hsiang Hsueh-pao, Vol 34, No 1, pp 1-9)

Several rules governing the mutual action between the disturbances of different wave lengths are given. The evolution of an initially single-wave disturbance in the wave-shaped basic westerly is also studied. The theoretical calculations give several phenomena which agree very well with the observation. It is especially worth mentioning that the deepening process of a trough is very like that of the diffluent trough of Bjerknes.

The calculation and charts in Section 6 of this paper were prepared by LO Mei-hsia (7482/5019/7209).

References: Date span of eight English references is 1954-1961; the one German reference was written by J. Bjerknes.

Author's Affiliation: Institute of Geophysics, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

WU Jung-sheng (0702/2827/3932)

"On the Influences of Mountain Range on the Instability of Disturbances"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34,
No 1, Feb 64, pp 11-19

Text of English Abstract: There are two parts in this paper. In the first part, the influences of the mountain range on the instability of barotropic disturbance are studied. The necessary condition for the occurrence of unstable disturbance is:

$$\frac{d^2 \bar{u}}{dy^2} - B - f a \frac{dh}{dy} = 0, \text{ where } \bar{u} \text{ is the basic current and } h \text{ is}$$

the height of the mountain. Furthermore, the growth-rate of amplitude and the velocity of displacement of disturbance are also estimated roughly. In the second part, a further study of the same topic in the baroclinic atmosphere is made. We found that, in the baroclinic atmosphere, the effect of vertical motion produced by northern and southern slopes of large mountains is more important.

The author expresses thanks to CHANG Shih-feng (1728/0013/7364) for assisting in preparing this paper.

(continuation of Ch'i-hsiang Hsueh-pao, Vol 34, No 1, pp 11-19)

References: Two references are in English and three references are in Chinese, dated 1949-1959.

Author's Affiliation: Department of Meteorology, Nanking University.

C-O-N-F-I-D-E-N-T-I-A-L

CH'EN Hsiung-shan (7115/7160/1472)

"Interaction Between Basic Current and Disturbances in the Baroclinic Atmosphere"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No 1, Feb 64, pp 20-29.

Text of English Abstract: The vorticity equation and adiabatic equation are converted into a set of nonlinear ordinary differential equations which have been integrated on the electronic computer with the use of the Rung-Kutta method. The results obtained show that the basic current and disturbances constrain each other, that the basic current alters quasi-periodically with periods of 10 to 13 days, and that the rate of change of basic current in each cycle is quite different. The disturbances of wave number six vary sinusoidally with a period of 11 to 13 days, the evolution of the disturbances of wave number four is complicated, and the disturbances of wave number two has a period of variation of about 3 days. The surfaces of wave number six develop or damp at the upper and lower levels simultaneously, but the evolution of the disturbances of wave number four or two at the upper and lower levels has the opposite trend.

(continuation of Ch'i-hsiang Hsueh-pao, Vol 34, No 1, Feb 64, pp 20-29)

Finally, the results obtained show that the solutions of different initial values possess quite different mean periods of index cycles.

In preparing this manuscript, the author received much encouragement from YEH Tu-cheng (5509/4648/2973); CHANG Pao-yen (1728/1405/0917) and CHU Yung-t'i (2612/3057/4398) assisted the writer in conducting calculations with electronic computers.

References: Of the 9 references used in this manuscript, 6 are in English, 2 in German, and one in Chinese, dated 1895-1963.

Author's Affiliation: Institute of Geophysics, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

CHU Fu-k'ang (2612/4395/1660)

"Power-Spectra Analysis of the Mean Monthly Maps of 500 MB Level at Latitudes 60° North and 30° North"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No 1, Feb 64, pp 31-39

Excerpts of English Abstract: Spectra analyses on the potential field in the zonally-averaged kinetic energy of meridional motions on the mean monthly 500 mb maps of Northern Hemisphere at latitude of 60° N and 30° N have been made. The seasonal variations of the amplitudes and phase angles of the first three ways and the difference between high and low latitudes of these quantities are studied in detail. The results are as follows:

1. The chief contributions of the normal potential field are mainly concentrated at the long quasistationary waves and show significant seasonal variation.
2. The waves of wave No 1 have significant differences in the latitudes north or south of about 50° - 60° N. The quasistationary long waves displace gradually through the west as they approach the lower latitudes.
3. The primary component of the zonally averaged meridional kinetic energy along 60° N is also concentrated in the quasistationary

(continuation of Ch'i-hsiang Hsueh-pao, Vol 34, No 1, pp 31-39)

waves. The maximum value appears in the waves of wave number $n = 2 - 4$, the peak value having significant seasonal variation. The spectra of the zonally averaged meridional kinetic energy along 30° N can be roughly classified into three types according to their seasonal variation: winter type, summer type, and transient type.

The author expresses thanks to T'AO Shih-yen (7118/6108/6056) for his timely advice and to CHANG Kuang-hsiu (1728/0342/4423) for assisting in the calculation work.

References: Of the 16 references used, 12 are in English and 4 in Chinese, dated 1954-1963.

Author's Affiliation: Research Institute of Meteorology, Central Meteorological Bureau.

C-O-N-F-I-D-E-N-T-I-A-L

CH'EN Wen-ch'i (7115/2429/3823)

WEN K'e-kang (3306/0344/0474)

TUNG Hsiao-min (5516/2556/2404)

TI Ying (5049/3841)

"A Synoptic Analysis of the Evolution of General Circulation in the Upper Troposphere of the Northern Hemisphere During the Period of Early Summer, 1958"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No 1, Feb 64, pp 41-50

Text of English Abstract: The structure, atmosphere, and evolution of the subtropical jet and subtropical high during the period 22 May - 3 July 1958 are studied by means of a tropopause map. The following facts are obtained: (1) The threefold structure of atmosphere is also rather clear in the early summer; hence tropopause maps can still be used in summer in analyzing the general circulation in the upper troposphere. (2) During this period, there are six or seven waves on the subtropical jet over the hemisphere. (3) There is a sudden northward shift of the subtropical jet at the beginning and end of June, when the amplitude of subtropical jet waves increases. (4) The northward shift of the axis of the subtropical high at 200 mb is consistent with the northward shift of the subtropical jet.

(continuation of Ch'i-hsiang Hsueh-pao, Vol 34, No 1, pp 41-50)

The authors express thanks to HSIEN I-ping (6200/5030/3521) and TAO Shih-yen (7118/6108/6056) for reviewing and correcting this paper and to CHEN Chen-hua (7115/2182/5478) and HSIAO Wen-chun (5618/2429/0193) for assisting in preparing the maps and charts for this manuscript.

References: Three English references and two Chinese references are used in this paper, dated 1958-1961.

Authors' Affiliation: All of Peking University.

C-O-N-F-I-D-E-N-T-I-A-L

CH'EN CH'iu-shih (7115/4428/1102)

LI Wei-liang (2621/4850/7081)

MIAO Chin-hai (4924/6930/3189)

"A Comparison of Mean Wind Field and Mean Meridional Circulation Between Southwest Monsoon Area in Southeast Asia and Pacific Trade Wind Area in July 1958"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No. 1, Feb 64, pp 51-60

Text of English Abstract: The existence of the monsoon vertical circulation cell, which consists of an ascending current near and over the Tibetan plateau and a descending current on the south, is directly proved by calculations from the actual wind data in July 1958. In the same period, the meridional circulation is a typical Hadley cell in the Pacific trade wind area. In the southwest monsoon area, there exists the easterly jet in the upper troposphere and the southwesterlies in the lower; but in the Pacific trade wind area, there is a westerly jet near 200 mb level and the easterlies in the lower troposphere. The factors which cause the monsoon circulation are discussed.

(continuation of Ch'i-hsiang Hsueh-pao, Vol 34, No 1, pp 51-60)

FANG Hsiang-fa (2455/0686/3127) assisted in drawing the charts for this paper.

References: Of the 15 references used, 4 are in Chinese, and all the rest are in English, dated 1956-1963.

Authors' Affiliation: All of the Peking University.

C-O-N-F-I-D-E-N-T-I-A-L

FU Pao-p'u (0265/2128/3877)

"Determination of the Components of Radiation Balance in an Undulating Country"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No 1, Feb 64, pp 62-73

Text of English Abstract: In this paper, we have calculated theoretically the components of radiation balance in an undulating country. Besides, as an example, the relative variations of the components of radiation balance between two windbreak hedges of different heights and interspaces are computed.

References: Three references are in Chinese and one in Russian, dated 1954-1961.

This paper was first received for publication on 16 August 1962; revised manuscripts were received in November 1962, June 1963, and November 1963.

Author's Affiliation: Department of Meteorology, Nanking University

CHANG Ming-li (4545/0682/4539)

"An Analysis of the Heat Balance in East China for a Period in Summer"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No 1, Feb 64, pp 74-85

Text of English Abstract: In this paper we have computed the values of each term in the energy equation and the energy transfer through the boundaries of a region in East China for the period 23-26 July 1959. During this period the subtropic high pressure has extended inland to the computed region. It is found that in this period the region under consideration is an energy source from which the heat and water vapor flow outward. Through the southern boundary, there is a net inflow of heat and water vapor, but at the eastern boundary there is an outflow of heat and water vapor in the lower layer and an inflow in the upper layers. In this region the energy loss was due to the effect of advection and radiation cooling, and the energy supply was due to the flux of sensible and latent heat from the surface, while the changes in heat and water vapor of the air column played a minor role in the balance. The eddy flux of sensible heat is about 1.84 times that of the latent heat from evaporation.

C-O-N-F-I-D-E-N-T-I-A-L

(continuation of Ch'i-hsiang Hsueh-pao, Vol 34, No 1, pp 74-85)

The author expresses thanks to T'AO Shih-yen (7118/6108/6056) and CHU Pao-chen (2612/2128/4176) for guidance and to LI Chi-shun (2621/0679/7311) and CH'EN Huai-i (7115/2037/5030) for participating in the calculation work.

References: Of the 7 references listed, 4 are in Chinese and 3 are in English, dated 1957-1959.

This paper was received for publication on 8 August 1963; a revised manuscript was received in November 1963.

Author's Affiliation: Institute of Geophysics, Chinese Academy of Sciences.

CHAO Pai-lin (6392/2672/2651)

"Investigation of the Mechanism of Ice Particle Formation and Dry Ice Evaporation in Supercooled Clouds"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No 1, Feb 64, pp 87-93

Translation of Russian Abstract: This paper examines the mechanism for the formation of ice particles and the evaporation process of dry ice. The results are in good agreement with experiment.

References: Of the 8 references listed, 3 are in English, 4 in Russian, and one in German, dated 1935-1962.

This paper was received for publication on 25 May 1963.

Author's Affiliation: Department of Geophysics, Peking University.

.. C-O-N-F-I-D-E-N-T-I-A-L

CH'AO Chi-p'ing (1560/4764/1627)
CH'EN Li-shu (7115/2980/5289)

"On the Effects of the Vertical Wind Shear on the Development and the Structure of Convection"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No 1, Feb 64, pp 94-102

Text of English Abstract: In this paper the effects of vertical wind shear on the development and the structure of convection are investigated theoretically. First, from the calculation of the perturbation growth rate, the relative importance of the vertical wind shear compared to the unstable stratification is discussed quantitatively. Second, the circulation of the convection as shown by calculation is similar to that found in thunderstorms and in shower clouds.

References: Of the 18 references used, 5 are in Chinese, 4 are in Russian, and the rest are in English, dated 1931-1963.

This paper was received for publication on 11 September 1963.

Authors' Affiliation: CH'AO, Institute of Geophysics, Chinese Academy of Sciences; CH'EN, Chinese University of Science and Technology.

CHOU Hsiu-chi (0719/4423/7535)
CH'IN Jen-chung (4440/0088/1813)

"Theoretical Analysis of a Critical Electrical Field for Spraying of Charged Drops"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No 1, Feb 64, pp 103-109

Translation of Russian Abstract: A criterion is theoretically given for the instability of the shape of the charged drop in an electric field. The derived results have good coincidence with Macky's experimental data. It is demonstrated that in a cumulonimbus, a spark-discharge occurs on the surface of the nimbus in an electric field with an intensity of 5,000 volts/cm. This probably has an important effect on the formation of intracloud discharge. In this case, the ion concentration in the clouds increases to a magnitude of 10^{10} cm³, which creates high conductivity of the medium. Finally, the radar echo intensity of a 3.2-cm wave length suddenly increases 20 times, as the result of the unstable deformation of rain drops in a critical electric field.

References: Of the 7 references listed, 5 are in English and 2 are in Russian; date span is 1882-1960.

C-O-N-F-I-D-E-N-T-I-A-L

(continuation of Ch'i-hsiang Hsueh-pao, Vol 34, No 1, pp 103-109)

This paper was received for publication on 11 September 1963.

Authors' Affiliation: CHOU, Institute of Geophysics, Chinese Academy of Sciences; CH'IN, China University of Science and Technology.

CHIANG Kuang-heng (3068/1684/1854)
MA Jung-t'ang (7456/2837/2768)

"Investigation of the Micrometeorological Effect of Winter Rolling of Wheat Fields on the Nanking Littoral"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No 1, Feb 64, pp 111-120

Excerpts of Russian Abstract: The method of winter rolling of wheat fields is applied in many regions of China, since the effect in increasing crop productivity has been empirically proven in agricultural production. Many studies have recently been made on the agrobiological significance of rolling, but little on the micrometeorological effects. This paper is a study on the micrometeorological effect of rolling of different soils during cold and warm weather waves in winter, based on 1961-1963 data of wheat field rolling on the Nanking littoral. The abstract summarizes the authors' three conclusions.

The authors express thanks to Prof LU Chiung (0712/3518), Prof YAO Chen-sheng (8010/2650/3932), and Comrade CHIANG Ai-liang (3068/1947/5328) for reviewing this manuscript and giving valuable suggestions as well as encouragement.

C-O-N-F-I-D-E-N-T-I-A-L

(continuation of Ch'i-hsiang Hsueh-pao, Vol 34, No 1, pp 111-120)

References: Three Chinese references, including one translated from the Russian, and one Russian reference are used in this manuscript, dated 1958-1961.

This paper was received for publication on 17 November 1962. The manuscript was later revised in September 1963 and also in October 1963 and is published as part of a research report compiled by the Agrometeorology Research and Teaching Section, Nanking Agricultural College.

Authors' Affiliation: Both of the Nanking Agricultural College.

CH'EN Jui-jung (7115/3843/2837)

"On the Effects of Rain Cloud Distribution During an Unusual Shift of Individual Cumulus Clouds"

Peiping, Ch'i-hsiang Hsueh-pao (Acta Meteorologica Sinica), Vol 34, No 1, Feb 64, pp 122-125

Abstract: In this paper, equations for calculating the distribution of rain clouds are given. The effects of an unusual shift of cumulus clouds are investigated theoretically, and numerical evaluation examples are studied by means of eight rainfall charts.

The author expresses his appreciation to KU Chen-chao (7357/7201/3390) for guidance in writing this paper.

Reference: The one Chinese reference is dated 1962 and was written by CH'EN of this article.

This paper was received for publication on 30 September 1963.

Author's Affiliation: Institute of Geophysics, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

"Acta Pharmaceutica Sinica" (Yao-hsueh Hsueh-pao)

HSIAO Shu-hua (5618/2885/5478)
SHANG Yun-cheng (0794/7301/1794)

"Studies on the Effect of F-30066 on Schistosoma Japonicum in Vitro"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10,
No 12, Dec 63, pp 701-706

Excerpts of English Abstract: It was found that F-30066, a new furacin derivative, had a direct effect on schistosomes in vitro. Trials were made with sheep serum-Tyrode solution (1:2) containing 0.5% glucose.

To explore the effect of F-30066 on the survival of worms in vivo, mice infected with schistosomes were treated with F-30066 or tartar emetic in the dosage of $1/2 LD_{50}$ per os for 5 days. When worms were placed in serum taken from rabbits $1/2$ to 8 hours after a single oral dosage of 1.3 gm/kg of F-30066, the survival time of the parasites was reduced from 12.2-12.8 days to 2.3-9.1 days.

It was found furthermore that the antischistosomal activity of F-30066 in vitro could be antagonized by cysteine, but not by cystine, lipoic acid, sodium dimercaptosuccinate, or vitamin C.

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 12, pp 701-706)

The authors express thanks to Prof MAO Shou-tai (0329/1343/4101) for reviewing the work and to HSU Yueh-ch'in (1776/2588/3830) for participating in the technical work.

This paper was received for publication on 3 April 1963.

Authors' Affiliation: Both of Institute of Parasitology, Chinese Academy of Medical Sciences, Shanghai.

C-O-N-F-I-D-E-N-T-I-A-L

SUNG Chen-yu (1345/2182/3768)
CHI Hsiu-chuan (4694/4423/1227)

"The Effect of Thirteen Medicinal Plants Used in Chinese Traditional Medicine and Folk Medicine on Experimental Arthritis in Rats"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 12, Dec 63, pp 708-711

Excerpts of English Abstract: Thirteen vegetable drugs used in Chinese traditional medicine or folk medicine were screened for antiphlogistic activity in animals. Irritation arthritis produced in rats by subcutaneous injections of either formalin or egg white to the ankle joint of the hind leg was employed for the test. The decoctions and (or) alcoholic extracts made from the drugs were administered orally at dosages corresponding to 10 gm crude drug per kg 30-40 minutes prior to the injection of egg white or gm (crude drug)/kg once daily for 5 days, starting 24 hours after the injection of formalin.

The authors express thanks to CHU Hsiu-yuan (2612/4423/1254) for participating in the work and to FU Feng-yung (0265/0023/3057), Chin Yin-ch'ang (6855/5593/2490) and LEI Hai-p'eng (7191/3189/7720) for their valuable opinions.

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 12, pp 708-711)

This paper was received for publication on 24 April 1963.

Author's Affiliations: Both of Department of Pharmacology, Institute of Materia Medica, Chinese Academy of Medical Sciences, Peiping.

C-O-N-F-I-D-E-N-T-I-A-L

FANG Ch'i-ch'eng (2455/6386/4453)

"A New Method of Isolating Ergometrine"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10,
No 12, Dec 63, pp 712-719

Text of English Abstract: In the present paper, a method for the isolation of ergometrine from ergot by means of ion exchange is described.

The air-dried powder of ergot was extracted with 0.05 N HCl, and the extract was passed over the ion exchange resin. It was found that out of six ion exchange resins of sulphonated styrene-divinyl-benzene type, the best for the adsorption of ergot alkaloids from the extract was the resin with 2% cross-linking in hydrogen form. Absorption was optimum at Ph 3.5-5.9. After treatment with 5% NH₄OH, the alkaloids were removed from the resin with acetone-ether (3:7) or acetone-chloroform (7:3) in a Soxhlet. Ergometrine can be separated from the other ergot alkaloids with chloroform in which the former is insoluble as solvated crystals.

A procedure for the isolation of ergometrine from ergot has been proposed, and small-scale runs gave yields of 60-70% (based upon the ergometrine content of the ergot).

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 12, pp 712-719)

The author expresses thanks to HUO Tse-min (7202/3419/3046) for participating in the technical work.

This paper was received for publication on 5 March 1963.

Author's Affiliation: Institute of Materia Medica, Chinese Academy of Medical Sciences, Peiping.

C-O-N-F-I-D-E-N-T-I-A-L

WANG Mu-tsou (3769/1970/6750)
LIANG Pin (2733/1755)
SHA Shih-yen (3097/0013/3508)
LO Shu-jung (5012/3219/2837)
CHOU T'ung-hui (0719/0681/1920)

"Studies on the Determination of Certain Major Constituents of Plant
Drugs: 3. Determination of Anthraquinones"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10,
No 12, Dec 63, pp 720-723

Excerpts of English Abstract: Paris' method for the determination of the
anthraquinone content of plant drugs has been studied. Through the
analysis of several drugs, including *Rheum palmatum* L., *Cassia tora* L.,
and *Polygonum multiflorum* Thunb., more favorable analytical conditions
were established.

This paper was received for publication on 19 February 1962.

Authors' Affiliation: All of Analysis Department, Institute of Materia
Medica, Chinese Academy of Medical Sciences, Peiping.

SU Hsueh-liang (5685/1331/5328)
CH'EN Ch'iong-hua (7115/8825/5478)

"Studies of Chinese Rhubarb: 2. Paper Chromatography of Anthraquinone
Derivatives"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10,
No 12, Dec 63, pp 725-730

Excerpts of English Abstract: Paper chromatography of anthraquinone
derivatives in Chinese rhubarb was investigated. It was observed that:

1. Carl Schleicher & Schule No 2043b filter paper was shown to be
superior to other grades used;
2. Of the 33 different solvent-systems tested, 8 were confirmed to
be adaptable, of which a new one, carbon tetrachloride: benzene: water
was found best;
3. The temperature effects on paper chromatography of anthraquinone
derivatives were of little significance. Only R_f values of emodin and
aloe-emodin slightly altered as temperature changed;
4. Horizontal technique with circular filter paper of 30 cm in
diameter was considered to be more convenient than the ascending technique.

The authors express thanks to MENG Kai-tsu (5536/6115/4809) for reviewing
the literature concerning rhubarb species.

C-O-N-F-I-D-E-N-T-I-A-L

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 12, pp 725-730)

This paper was received for publication on 2 February 1962.

Authors' Affiliation: Both of Biochemistry Teaching and Research Section, Tientsin Medical College.

SHENG Shu-kuang (4141/2562/0342)
YEH Ch'ung-i (5509/1504/5030)
P'ENG Szu-hsun (1756/0674/0534)

"Colorimetric Determination of Hetrazan and Piperazine Citrate and Their Preparations"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 12, Dec 63, pp 731-735

Text of English Abstract: In this paper, the visible absorption spectra of the reineckates of hetrazan and piperazine citrate in acetone were studied and found to be similar to those of the reagent itself rather than of the organic bases.

The molecular composition of the reineckates has been confirmed by molecular weight determination. Furthermore, the solubility (in water) and the gram-molecular extinction coefficient of the reineckates were also determined.

Based on these experiments and the red color of the reineckates in acetone, a colorimetric method for the estimation of hetrazan and piperazine citrate and most of their preparations is proposed. In comparison with the solvent extraction or gravimetric procedure, it is simple, rapid,

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(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 12, Dec 63, pp 731-735)

and accurate, which is, therefore, quite suitable as a routine method for quality control purpose.

This paper was received for publication on 4 November 1962.

Authors' Affiliation: SHENG and YEH of Kiangsu Provincial Drug Control Bureau, Nanking; P'ENG of Nanking College of Pharmacy.

CHIN Yun-hua (6855/5686/5478)
CHOU Tzu-ch'ing (0719/1311/3237)
CH'ENG Ping-ju (2052/0393/1172)
HU Han-ho (5170/3352/0735)

"Research on the Preparation of Piperazine Phosphate"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 12, Dec 63, pp 737-739

Text of English Abstract: A convenient method is reported for the preparation of piperazine phosphate, an anthelmintic and pharmaceutical intermediate. p-Toluenesulphonyl chloride, a by-produce from saccharin manufacture, was first converted into p-toluenesulphonamide, which was then condensed with ethylene dichloride in the presence of anhydrous potassium carbonate to form N,N'-bis-(p-toluenesulphonyl)-piperazine. Hydrolysis with concentrated phosphoric acid gave piperazine acid phosphate; the latter, on partial neutralization with sodium or calcium hydroxide, gave directly the expected piperazine phosphate monohydrate, m.p. 224-6° C. Experimental conditions were studied.

This paper was received for publication on 3 April 1963

C-O-N-F-I-D-E-N-T-I-A-L

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 12, pp 737-739)

Authors' Affiliation: All of Wuhan Municipal Institute of Pharmaceutical Industry (Wu-han-shih I-yao Kung-yeh Yen-chiu-so -- 2976/3352/1579/6829/5673/1562/2814/4282/4496/2076).

TENG Shih-hsien (6772/1102/6343)
WANG Te-ch'eng (3769/1795/2052)
WANG Mao-te (3769/2021/1795)
HO Kung-pei (0149/0501/0223)
MO Yun-ch'iang (5459/7189/1730)
WANG K'un (3769/3824)
YANG Heng-tsu (2799/1854/2469)

"Emetic and Expectorant Effects of Lycoris Aurea Herb"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 12, Dec 63, pp 740-744

Excerpts of English Abstract: Lycoris aurea Herb (Amaryllidaceae) is indigenous to Yunnan and other southern provinces in China. The chief alkaloid of the bulb of the plant is lycorine. This paper describes the emetic and expectorant actions of the fluid extract and lycorine hydrochloride made from the dried bulbs.

The authors express thanks to SUN Pi-hsing (1327/1801/5281) of the Botany Section of the Biology Department, Yunnan University, for verifying Lycoris Aurea Herb and to YANG Ch'ang-ch'ing (2799/7022/1987) of the Regional Anatomy Teaching and Research Section, K'un-ming Medical College, for participating in the work.

C-O-N-F-I-D-E-N-T-I-A-L

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 12, pp 740-744)

This paper was received for publication on 24 February 1962.

Authors' Affiliation: TENG, WANG Te-ch'eng, WANG Mao-te, and HO of Pharmacology Teaching and Research Section, K'un-ming Medical College; MO, WANG K'UN, and YANG of Central Research Department of K'un-ming Pharmaceutical Plant.

YUEH K'ai-li (2867/7030/4409)
CHOU Yun-hsien (0719/7189/0103)

"The Pharmacological Study of Tupistra Fimbriata H-M.: 2. Cardiotonic Effect, Cumulative Effect, Speed of Onset of Action, and Therapeutic Coefficient"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 12, Dec 63, pp 745-750

Text of English Abstract: Following a preliminary investigation on the cardiotonic effect of tupistrin, a glycoside isolated from the roots of Tupistra fimbriata H-M., the cumulative effect, speed of onset of action, and therapeutic coefficient of this glycoside were studied.

Tupistrin was shown to have a rapid onset of action. In pigeons receiving a dose of 0.5 MLD/kg, tupistrin could no longer be detected 24 hours later. Tupistrin was shown to give less cumulative effect than k-strophanthin.

Using the guinea pig method, the authors found that the therapeutic coefficient of tupistrin was 3.32, while that of g-strophanthin was 2.31.

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(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 12, pp 745-750)

Tupistrin showed no haemolytic effect in tests using human, rabbit, or guinea pig blood. The solution of tupistrin was stable on autoclaving.

This paper was received for publication on 2 April 1962.

Authors' Affiliation: Both of Pharmacological Laboratory, Yunnan Provincial Institute of Medical Plants, K'un-ming.

C-O-N-F-I-D-E-N-T-I-A-L

"Acta Physica Sinica" (Wu-li Hsueh-pao)

LU Chung-fa (0712/2529/4099)

"Cherenkov Radiation of Particles Having Directional Spin"

Peiping, Wu-li Hsueh-pao (Acta Physica Sinica), Vol 20, No 2, Feb 64,
pp 97-103

Translation of Chinese Abstract: This paper studies the influence of the spin of large particles in dielectric activity on the strength of Cherenkov Radiation by means of Quantum electrodynamic methods. It is pointed out that under conditions of horizontal spin, radiation strength has a new quantum supplementary value. As with particles (spinning) in a vertical direction, the radiation is composed of two parts: the polarized part (on a radiation threshold, $\cos \theta = 1$ equivalent to 0) and the nonpolarized part (distinguished from 0 on the radiation threshold).

The author thanks YI Men-hua of the Democratic People's Republic of Korea for his assistance.

The work for this paper was completed at Moscow University in 1961; it was received for publication on 12 September 1962.

Author's Affiliation: Nan-k'ai University.

WU Ch'ung-shih (0702/1504/6107)
TS'ENG Chin-yen (2582/6210/6056)

"The Nonaxially-Symmetric Rotational Motion of the Odd-A Nuclei Mg^{25} and Al^{25} "

Peiping, Wu-li Hsueh-pao (Acta Physica Sinica), Vol 20, No 2, Feb 64,
pp 104-116

Text of the English Abstract: In the present paper, the nonaxially-symmetric rotational motion of the odd-A nucleus is treated under the adiabatic condition. The relationship between the nonaxial and axial rotation is pointed out. The spectra of Mg^{25} and Al^{25} have been analyzed in detail. The agreement with experiment is fair. The ground state magnetic moments and reduced E_1 transition probabilities between some low-lying states are also calculated.

This paper was received for publication in October 1962.

Authors' Affiliation: Department of Physics, Peking University.

C-O-N-F-I-D-E-N-T-I-A-L

CHOU Chieh-hsiang (30719/0094/3276)
CHENG P'ei-chu (6774/1014/5468)
MA La-tun (7456/4409/2415)

"Initial Discussions on the Use of Meromorphic Functions Analogous to ζ^H Functions"

Peiping, Wu-li Hsueh-pao (Acta Physica Sinica), Vol 20, No 2, Feb 64, pp 117-129

Translation of Chinese Abstract: This paper discusses the possibility of applying the meromorphic functions which copy ζ^H functions under conditions of a central symmetrical structure in the analysis of crystal structure. Examples from documentary data are used as illustrations, and an initial estimate is made with regard to the areas in which this method can be used.

The authors extend thanks to Lo Wei-wei (7482/5633/5633),
P'AN Shih-lin (3382/4258/7792), CH'EN Ming-Ch'in (7115/7686/3830),
CHU Yu-chen (2612/5940/6297), CHU Shih-Ch'i (2612/0013,3823),

(continuation of Wu-li Hsueh-pao, Vol 20, No 2, Feb 64, pp 117-129)

CHU Shih-k'ing (2612/0013/1560), and WANG Po-i (3769/0590/9030) for their assistance in many areas.

This paper was received for publication on 14 November 1962.

Authors' Affiliation: Department of Chemistry, Fudan University.

C-O-N-F-I-D-E-N-T-I-A-L

TAI Yuan-ten (2071/0337/2609)

"The Radiative Decay of an ω Particle"

Peiping, Wu-li Hsueh-pao (Acta Physica Sinica), Vol 20, No 2, Feb 64,
pp 131-136

Text of English Abstract: A dispersion relation for the process $\omega \rightarrow \pi + \gamma$ is obtained by the analytical continuation in the ω mass. Some problems concerning dispersion relations involving unstable relations are discussed. Under simplified assumptions we obtain $\frac{W_{\omega \rightarrow \pi + \gamma}}{W_{\omega \rightarrow 3\pi}} \approx 0.35$ and $\frac{W_{\eta \rightarrow \pi + \gamma}}{W_{\eta \rightarrow 3\pi}} \approx 25$ if η has the same quantum numbers as ω . The effect of the interaction in pairs between 3 pions is included in the calculation.

This paper was received for publication on 14 March 1963.

Author's Affiliation: Chinese Academy of Sciences.

WU Yu (2976/1342)

"A Perturbation Method for Heat Conduction Problems with Cylindrical Air Gaps"

Peiping, Wu-li Hsueh-pao (Acta Physica Sinica), Vol 20, No 2, Feb 64,
pp 137-146

Text of English Abstract: The heat conduction problem is transformed into an algebraic eigenvalue problem which can be solved very simply by a perturbation method, the perturbation parameter being the small ratio between the coefficients of heat conduction in the gas and in the solid.

This paper was received for publication on 16 March 1963.

C-O-N-F-I-D-E-N-T-I-A-L

WU Shih-shu (0702/1709/2873)

"On the Bruekner—Goldstone Linked Cluster Expansion Formula"

Peiping, Wu-li Hsueh-pao (Acta Physica Sinica), Vol 20, No 2, Feb 64,
pp 147-158

Text of English Abstract: By a new choice of the vacuum state, it is shown that the nondegenerate Bruekner-Goldstone linked cluster expansion formula can also be applied to the case in which there is one particle outside or one hole inside the closed shell configuration, even though here exists degeneracy.

The draft of this paper was reviewed and corrected by Yu Min (0060/2404) and YANG Li-ming (2799/4539/6900).

This paper was received for publication on 28 March 1963.

Author's Affiliation: Department of Physics, Kirin University.

CHANG Tsung-yeh (1728/1350/8763)

"The Effect of Nonharmonic Items in Spherical Nuclear Vibration"

Wu-li Hsueh-pao (Acta Physica Sinica), Vol 20, No 2, Feb 64,
pp 159-163

Translation of Chinese abstract: This paper considers the effect of nonharmonic items in the , representation and their energy with regard to quadrupole surface vibration and calculates their electrical quadrupole moment in the E2 transition and 2^+_1 state. These are compared with experimental results.

This work was initiated at the suggestion of Prof A. Bohr during his visit to China in 1963. YU Min (0600/2404) provided assistance and discussion.

This paper was received for publication on 15 May 1963.

C-O-N-F-I-D-E-N-T-I-A-L

LI Yin-yuan (2621/5593/6678)

"On the Raman Effect of Multiple Radiation Process and Its Applications in Spectroscopy"

Peiping, Wu-li Hsueh-pao (Acta Physica Sinica), Vol 20, No 2, Feb 64, pp 164-172

Text of English abstract: In the strong electromagnetic field of a laser beam, the third-order process of radiation with two photons absorbed and a third one emitted during a transition between energy levels of a material system may become observable. This process has analogy with the ordinary Raman effect in which only two photons are involved. In this paper, a theoretical analysis has been given with the conclusion reached that with a beam intensity of 0.1 MW/cm^2 , the vibrational Raman spectrum of molecules or crystals may be obtained by the three-photon process. It is shown that this effect actually offers a new spectroscopical method. Its importance lies in the difference in the selection role of this effect and those of the

(continuation of Wu-li Hsueh-pao, Vol 20, No 2, Feb 64, pp 164-172)

infrared absorption and the ordinary Raman effect. It is also pointed out that the stimulated radiation of a three-photon Raman effect may be realized when pumped with a powerful laser beam.

This paper was received for publication on 20 May 1963.

Author's Affiliation: Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

"Journal of Architecture" (Chien-chu Hsueh-pao)

WANG P'ing (3769/2185)

"Some Circumstances and Noteworthy Problems in Rural Architectural Design"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 12, Dec 63, pp 1-4

Abstract: Six achievements in rural architectural design are presented. Ten noteworthy problems in the designing of rural structures are discussed. Four general photographs of rural structures accompany this article.

MANG Hsien-tung (1322/2009/2767)

"Architecture in Inner Mongolia Autonomous Region"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 12, Dec 63, pp 5-9

Abstract: This article discusses both traditional and modern architecture in Inner Mongolia. The article elaborates on architectural work done since 1949. Numerous photographs of modern and traditional architecture in this region accompany the article.

C-O-N-F-I-D-E-N-T-I-A-L

HOU Yu-pin (0230/1635/1755)

"Spatial Composition of Traditional Buildings."

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 12, Dec 63,
pp 10-12

Abstract: This article describes, in steps, a general outline for traditional architecture. This article discusses beautification and disposition of measurement, and there is a general discussion by the author for the general public on traditional architecture. Seven sketches concerning the material covered accompany this article.

CHANG Chung-i (1728/0112/0001)

"Interior Decoration of Some Public Buildings in Peiping"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 12, Dec 63,
pp 13-15

Abstract: This article is concerned with the interior decoration of Peking Peace Hotel, the Peking Workers Gymnasium, and the elevated waiting room of the Peking Railroad Station. Photographs of these buildings accompany this article.

C-O-N-F-I-D-E-N-T-I-A-L

SHU Chen-ya (1776/2182/0068)

"Planning the Recreation Park in Cha-lan-t'un"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 12, Dec 63,
pp 18-19

Abstract: This article covers the work done on the planning for the Cha-lan-t'un Recreation Park in Cha-lan-t'un Municipality, Inner Mongolia Autonomous Region. A layout of the park with legend accompanies the article.

CH'EN Li-k'un (7115/2621/1024)

"Architecture in Albania"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 12, Dec 63,
pp 26-30

Abstract: This article discusses modern architecture in Albania. The article presents the types of architecture and the accomplishments Albania has made in the field of architecture since the liberation. Numerous photographs of traditional and modern buildings in Albania accompany this article. Three photographs of industrial installations are also presented.

C-O-N-F-I-D-E-N-T-I-A-L

LU Ts'ang-hsien (7120/0221/6343)

"On the Design of Prefabricated Brick Paneling for Housing"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 1, Jan 64,
pp 4-8

Abstract: This article reviews the method of construction using pre-fabricated brick or reinforced concrete walls, as it has been developed since 1958 by the Peking Municipal Architectural Design Academy. Savings in material, labor, structural weight, and structural area are discussed, and an estimate is made of the future development of this method. The article is accompanied by pictures of several buildings which have been built in this way and by drawings of construction details.

FENG Te-yu (7458/1795/3022)

LI Ch'ing-t'ang (2621/1987/1016)

CH'EN Ming-fen (7115/2494/2780)

"Some Problems of Housing Design in Cold Weather Districts"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 1, Jan 64,
pp 9-11

Abstract: This article reviews the characteristics of residential construction in cold areas, specifically Heilungkiang Province, and the methods employed to protect them against the cold and conserve internal heat. The article is accompanied by floor plans of typical apartments, drawings of design features, and information charts and graphs.

C-O-N-F-I-D-E-N-T-I-A-L

"Interior Design of Urban Dwellings"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 1, Jan 64,
pp 12-14

Abstract: This article describes some recently designed fixtures, hardware, and furnishings for urban residences. The article is accompanied by tables of data on dimensions and drawings of the various articles described.

Author's Affiliation: Fifth Office, Peiping Industrial Architecture Design Academy.

LIU Hung-tien (0491/7703/0368)

"Orientation Solutions for Town Dwellings Facing West"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 1, Jan 64,
pp 15-18

Abstract: This article discusses means of protecting buildings with a western exposure from the hot afternoon sun. There is also some discussion of the architectural treatment of end walls and of the suitable utilization of decoration and landscaping. The article is accompanied by drawings and diagrams illustrating some of the solutions discussed.

C-O-N-F-I-D-E-N-T-I-A-L

CH'EN Meng-p'o (7115/1322/0980)

"Experimental Dwelling of Long-Span Prefabricated Floor Slabs"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 1, Jan 64,
pp 19-20

Abstract: This article reviews the savings which were realized and the problems encountered in the experimental construction of small apartments with prefabricated floor slabs. The article is accompanied by diagrams, charts, and a photograph of the experimental building.

LIANG Ch'i-chieh (2733/0796/0267)

"Some Ventilation and Cooling Problems for Housing in Canton"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 1, Jan 64,
pp 21-23

Abstract: This article discusses the maintenance of comfortable interior temperatures in the Canton area by means of reducing the amount of heat absorbed from the sun, improving natural ventilation, controlling interior temperatures by preventing the entry of hot outside air, and landscaping the surrounding area. The article is accompanied by several drawings and diagrams.

C-O-N-F-I-D-E-N-T-I-A-L

CH'EN Ch'i-kao (7115/0796/7559)

"Heat Insulation and Cooling of Dwellings in Hilly Cities"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 1, Jan 64,
pp 24-26

Abstract: This article reports on the results of observations and investigations of the special problems of ventilation and cooling of residential buildings in the hot, humid climate of Chungking. The article is accompanied by several drawings illustrating methods of layout and construction details which assist in cooling the houses.

TSOU Shou-i (6760/4060/2034)

"T'ao-yuan Village, Shanghai"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 1, Jan 64,
pp 27-29

Abstract: This article describes a complex of five- and six-story apartment buildings which were constructed in 1960 on what was formerly a slum area of Shanghai. The article is accompanied by photographs and floor plans of the apartments.

C-O-N-F-I-D-E-N-T-I-A-L

LI Ying-ch'i (2621/2019/0967)
HSU Han-hui (6079/3352/6540)

"Design of Shops on the Ground Floor of Residential Buildings Along Streets"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 1, Jan 64
pp 30-33

Abstract: This article discusses the special design features of apartment buildings in urban areas which make possible the utilization of the ground floor to house shops and stores. The article is accompanied by drawings and photographs.

LIU Yun-ho (0491/0061/7729)

"Architecture in the United Arab Republic"

Peiping, Chien-chu Hsueh-pao (Journal of Architecture), No 1, Jan 64,
pp 34-38

Abstract: This article reviews modern architecture and some recent construction in the United Arab Republic. The article is accompanied by several photographs.

C-O-N-F-I-D-E-N-T-I-A-L

"Acta Palaeontologica Sinica" (Ku-sheng-wu Hsueh-pao)

CHANG Wen-p'ang (1728/2455/1016)

CH'EN P'i-chi (7115/0012/1015)

"New Cretecaus Conchostraca From Kirin and Heilungkiang"

Peiping, Ku-sheng-wu Hsueh-pao (Acta Palaeontologica Sinica), Vol 12,
No 1, Feb 64, pp 1-10

Excerpts of English Summary: The Cretaceous fossil Conchostracans described in this paper was collected by the members of the field party of the Ministry of Geology in Western Kirin and Southwestern Heilungkiang. The classification of the cretaceous deposits in these regions is discussed and revised on the basis of stratigraphical successions and the faunal characters. Five conchostraca zones are listed.

Three pages of plates with English translations accompany this article.

Authors' Affiliation: Both of Institute of Geology and Paleontology, Chinese Academy of Sciences.

YANG Ching-chih (2799/2417/0037)

"Some Bryozoans From the Upper Devonian of Changyang, Western Hupeh"

Peiping, Ku-sheng-wu Hsueh-pao (Acta Palaeontologica Sinica), Vol 12,
No 1, Feb 64, pp 26-28

Excerpts of English Summary: The bryozoans described in this paper were collected from the middle part of the Hsieh-ching-szu formation, Upper Devonian, in 1951 by Prof. MU En-chih and the writer during their investigations of stratigraphy of the Ma-an-shan region of Changyang district, Western Hupeh. Three new species of bryozoa are described. The bryozoans studied show much greater relationship to Middle Devonian than to Lower Carboniferous species.

One page of plates with English translation accompanies this article.

Authors' Affiliation: Institute of Geology and Paleontology, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

SHIH Ts'ung-kuang (2457/1783/1684)

"The Middle and Upper Devonian Ostracoda From Tu-shan and Tu-yun, Southern Kweichow"

Peiping, Ku-sheng-wu Hsueh-pao (Acta Palaeontologica Sinica), Vol 12, No 1, Feb 64, pp 34-47

Excerpts of English Summary: The Ostracoda described in this paper were collected in the winter of 1958 by Prof. YANG Ching-chi and his party and in the spring of 1959 by YU Ch'ang-min and his party from the Middle and Upper Devonian of Tu-shan and Tu-yun, Southern Kweichow.

The specimens illustrated and described in this paper comprise 23 species in 13 genera, of which 3 genera and 17 species are new.

Two pages of plates with English translations accompany this article.

Authors' Affiliation: Institute of Geology and Palaeontology, Chinese Academy of Sciences.

CH'EN Ch'u-chen (7115/2806/7201)

"On the Occurrence of Halobia Fauna From the Kan-tzu Region, Western Szechwan, and Its Significance"

Peiping, Ku-sheng-wu Hsueh-pao (Acta Palaeontologica Sinica), Vol 12, No 1, Feb 64, pp 66-74

Excerpts of English Summary: The present study deals with the fossils of "Hsi-k'ang Series" of Western Szechwan. All of the specimens determined as Halobia were collected in 1959 by a geological party of the Szechwan Geological Bureau from the type-locality of Hsi-k'ang series" at Kan-tzu Region.

The "Hsi-k'ang Series" concerned was first named by T'AN Hsi-ch'ou and LI Ch'un-yu in 1935 for a series of metamorphic rocks, consisting mainly of black and grey slates with sub-graywacke intercallations. The geological age of these metamorphic rocks has not yet been fixed due to the scarcity of fossil remains.

The article goes on to discuss a description of the new series and presents the halobia fauna which was collected from four localities.

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(continuation of Ku-sheng-wu Hsueh-pao, Vol 12, No 1, Feb 64, pp 66-74)

One page of plates accompanies this article.

Authors' Affiliation: Institute of Geology and Palaeontology,
Chinese Academy of Sciences.

YANG Shih-p'u (2799/1709/3302)

"Lower Carboniferous Brachiopods of the Tournaisian Stage in
Southeastern Kweichow"

Peiping, Ku-sheng-wu Hsueh-pao (Acta Palaeontologica Sinica), Vol 12,
No 1, Feb 64, pp 82-99

Excerpts of Russian Summary: This paper describes Lower Carboniferous Brachiopods from the Tournaisian Stage in the Southeastern Part of Kweichow and is based on specimens collected in 1960 by the author and other instructors with students from the Peking Geological College from the following deposits: (1) Pu-shan, T'ang-pa-k'ou'Ko'lo'ho; (2) Tu-shan, Wu-li-ch'iao'Piao'li; and (3) P'ing-t'ang, K'a-lo-Kang-chan. A total of 16 species and one subspecies, related to 8 genera, are described. These include 9 new species and one new subspecies. The tournaisian stage in Southeastern Kweichow is divided into two parts: the lower-Ko-lo-ho limestone and the upper-P'ang'pa'k'ou sandstone.

Three illustrated tables are appended.

Two pages of plates accompany this article.

Authors' Affiliation: Peiping Geological College.

C-O-N-F-I-D-E-N-T-I-A-L

LAI Ts'ai-ken (6351/2088/2704)

"Jangziceras -- A New Silurian Nautiloid Genus"

Peiping, Ku-sheng-wu Hsueh-pao (Acta Palaeontologica Sinica), Vol 12, No 1, Feb 64, pp 116-123

Excerpts of English Summary: The material on which this article is based was collected by SHENG Hsin-fu (4141/5450/1133), TING Yun-chieh (0002/5686/2635), and TUAN Ch'eng-hua (3008/2110/5478) from various localities.

Divisions of the Nautiloids are mainly based on the structure of the Siphuncle.

The article goes on to give a description, a diagnosis, and the genotype and discusses the genus.

One page of plates accompanies this article with explanations in English.

The author expresses thanks to Prof SUN Yun-chu (1327/0061/6999), Prof YU Chien-chang (0205/1696/4545), and Prof MU En-chih (4476/1869/0037) for their critical reading of the manuscript; to SHENG Hsin-fu

(continuation of Ku-sheng-wu Hsueh-pao, Vol 12, No 1, pp 116-123)

(4141/5450/1133), TUAN Ch'eng-hua (3008/2110/5478), and TING Yun-chieh (0002/5686/2638) for their valuable collections; and to WU Liu-sheng (0702/3966/3932) for preparing all the photographs.

Author's Affiliation: Research Academy of Geology, Ministry of Geology.

C-O-N-F-I-D-E-N-T-I-A-L

CHANG Jih-tung (1728/2480/2639)

"Some New Material on Nautiloids From the Yeh-wa-shan and Wo-t'a Limestones"

Peiping, Ku-sheng-wu Hsueh-pao (Acta Palaeontologica Sinica), Vol 12, No 1, Feb 64, pp 129-133

Excerpts of Russian Summary: Fossils of nautiloids abound in the Yeh-wa-shan and Wo-t'a Limestones of the Middle Ordovician Deposits in the western part of Chekiang and Hupeh provinces. This paper describes specimens collected mainly by Prof LU Yen-hao, Prof MU En-chih (4476/1869/0037), HOU Yu-t'ang (0186/4368/1016), LIU Ti-yung (0491/4574/1066), and the author in 1954, during their collaboration in Hua-ni-kang Village in Chiang-shan District, in the western part of Chekiang Province, and by the author in 1958 during geological prospecting operations in Fen-hsien, Hupeh.

One illustrated table is appended.

One page of plates accompanies this article.

Author's Affiliation: Department of Earth Sciences, Chinese Academy of Sciences.

P'AN Chiang (3382/3068)

"Some Devonian and Carboniferous Fishes From South China"

Peiping, Ku-sheng-wu Hsueh-pao (Acta Palaeontologica Sinica), Vol 12, No 1, Feb 64, pp 139-157

Excerpts of English Summary: The present paper describes seven species of Devonian Carboniferous fishes of South China. These species are as follows: Acanthodii - Asiacanthus kaoi P'an (Sp. Nov.), A. suni P'an (Sp. Nov.), Sinacanthus wuchangensis P'an, Antiarchi -- Asterolepis Sinensis P'an, Bothriolepis lochangensis P'an (Sp. Nov.), B. Kwangtunensis P'an (Sp. Nov.), and Cladoselachii -- Cladodus yunnanensis P'an (Sp. Nov.).

The article goes on to tell where these specimens were collected and by whom they were collected. The article gives a description of the species.

Three pages of plates accompany this article with explanations in English. The author expresses thanks to 16 individuals, including Prof YANG Tsun-i (2799/6690/0308) and Prof MU En-chih (4476/1869/0037), for their worthy directions and critical reading of the manuscript.

Author's Affiliation: Museum of Geology, Ministry of Geology.

C-O-N-F-I-D-E-N-T-I-A-L

RESEARCH AND DEVELOPMENT

1. Scientist Describes New Intestinal Parasite Found in Swine

CH'EN Chin-shui (7115/6855/3055), in collaboration with CH'U Hsu-chiu (4234/2485/0036), presents the morphological features of a new species of cestode belonging to the genus *Hsuoilepis*, which genus was first described by the aforementioned persons in the Peiping journal Wei-sheng-wu Hsueh-pao (*Acta Microbiologica Sinica*), Volume 5, No 4, 1957, pages 362-365. The new species described was one of 13 different internal parasites found in 50 hogs in the Lan-chou area during 1956-1957. At the time CH'EN and CH'U were [studying] at the Northwest Animal Husbandry and Veterinary College (now Kansu Agricultural College), the survey of parasitic worms was conducted under the guidance of Prof HSU Shou-t'ai (6079/4849/3141). All 13 species are listed in an article, "Survey of Internal Parasites in Kansu Hogs." The coauthors are currently affiliated with the Institute of Traditional Veterinary Medicine, China Academy of Agricultural Sciences. (Peiping, Chung-kuo Ch'u-mu Shou-i [Chinese Animal Husbandry and Veterinary Medicine], No 4, Apr 63, pp 8-11) (**CONFIDENTIAL**)

2. New Type of Weather-Sounding Instrument Produced

The Shanghai Kuo-chi Telecommunications Equipment and Material Plant has recently test-produced a new type of high-altitude weather-sounding device -- the model 59 code type high-altitude sounding device. It is a precision instrument for measuring weather data at high altitudes. After being carried aloft by a balloon, it will automatically convert data on high altitude temperatures, humidity, atmospheric pressure, wind speed, etc., into a radio signal and transmit it. (Shanghai, Tien-tzu Chi-shu [Electronic Technology], No 1, Jan 64, p 46) (**CONFIDENTIAL**)

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3. Lung-hua Hospital Traditional Therapy and Research

Lung-hua Hospital, an affiliate of the Shanghai College of Chinese Traditional Medicine, in July 1963, further improved its Chinese traditional medical wards and outpatient work, set up a Chinese traditional medical emergency outpatient department, developed Chinese traditional medical scientific research, oriented the hospital's Western physicians in the use of modern methods of clinical application of Chinese traditional medicine, and helped the Chinese traditional physicians make modern Western medical diagnoses.

Work done in the last 4 months has shown that treatment using Chinese traditional methods was very effective in the treatment of diarrhea, acute appendicitis, and other acute illnesses.

To bolster research work in Chinese traditional medicine, Western-style physicians have here been using a combination of modern Western scientific medical methods and Chinese traditional methods of diagnosis and treatment; the method used has depended upon the merits of the individual case.

A great volume of material has been accumulated on cardiac diseases, chronic hepatitis, asthma, and bone fractures, and a research ward in Chinese traditional medicine was recently opened to meet the research needs of Chinese traditional doctors as regards these ailments. Chinese traditional physicians of the various medical services, working under their immediate supervisors, have set up special studies on

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certain diseases, observed the effectiveness of treatments, and made research summaries. The hospital leaders have also given help to the old Chinese traditional doctors and have aided them in writing books, explaining their theories, and summarizing their scientific experience. (Shanghai, Chieh-fang Jih-pao, Nov 63, p 2) (CONFIDENTIAL)

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4. Conference on Technique of Prospecting for Refractory Clay

In mid-November 1963, a conference was convened under the joint sponsorship of the Geological Office (ssu-0674) of the Ministry of Metallurgical Industry and the National Stockpiling Committee (Chuan-kuo Ch'u-wei - 0022/0948/0328/1201). Participating in this conference were representatives in the fields of geological prospecting, planning, mining operations, refractory material works, etc. and also provincial representatives of the National Stockpiling Committee, among others. The conference dealt mainly with technical problems involved in prospecting for refractory clay.

At this meeting, the North China Metallurgical Prospecting Company presented a paper on the subject of prospecting for refractory clay in China. Using this valuable data from the source above, the technical problems of prospecting for this material under existing conditions were then fully discussed until a preliminary conclusion was reached. It was believed that any work of developing and improving the standard and specifications of refractory clay will certainly be put to greater use in the future. (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 12, 10 Dec 63, p 2) (**CONFIDENTIAL**)

5. Annual Meeting of Peking Society of Neurology and Psychiatry

A total of 58 papers were presented at the annual meeting of the Neurology and Psychiatry Society of the Chinese Medical Association Peiping Branch, which was held on 15-16 September 1963. The papers concerning neurosurgery dealt with the following topics: encephalographic analysis of cerebral tumors, fluid balance and nitrogen metabolism after craniotomy, cerebrovascular roentgenography of traumatic intracranial hematoma, rapid diagnosis of intracranial tumors by "pressure plate" method, and clinical analysis of encephalophyma and encephalopyosis. Those in the field of neurology touched on the following topics; anatomical basis for vibrating the brain, xylocaine in the treatment of epilepsy, "Unithiol" in the treatment of Wilson's disease, cerebrovascular changes in rheumatic disease, thrombogenesis in basilar and internal carotid arteries, the cardiogram and digestive system in acute cerebrovascular disease, affections of the cervical spine, reading the low-voltage encephalogram, and appraisal of rachiaminophase measurement in diagnosis of diseases of the nervous system. In addition, there were papers on epilepsy, myosis, and polymyositis complicating myeloma.

The following topics were covered in papers on psychiatry: comprehensive therapy for neurasthenia, observations on the long-range effectiveness of psychiatric treatment and studies on medical psychology, clinical observations on remission in schizophrenia and causal factors in recurrence, appraisal of chlorpromazine therapy, multiple-case analysis of liver damage and fatalities due to chlorpromazine, and

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variations in the 5-hydroxytryptamine content of the blood of schizophrenics. (Peiping, Chung-hua Shen-ching Ching-shen-k'o Tsa-chih [Chinese Journal of Neuropsychiatry], Vol 7, No 3, Nov 63, inside back cover). (CONFIDENTIAL)

6. Canton Neurology and Psychiatry Society Holds Symposium

The Neurology and Psychiatry Society of the Chinese Medical Association Canton Branch held a symposium on "Temporal Lobe Epilepsy" in September 1963. Among the speakers were Dr WANG Tso-hsien (3769/4371/6343) of Canton Medical College, who spoke on the "Development of Research on Temporal Lobe Epilepsy," reviewing the Chinese and foreign literature on the subject; Dr MO Kan-ming (3351/3227/2494), of the Canton Municipal Mental Hospital, who discussed the etiology and pathology of the disease based on pathoanatomical and encephalographic studies; and Dr CHAO Keng-yuan (6392/5087/3293), of Chung-shan Medical College, who discussed problems related to terminology. The closing address was delivered by Prof HUANG Chao-k'ai (7806/0340/7030), also of Chung-shan Medical College, who pointed out the need for further studies on the functions of the temporal lobe. (Peiping, Chung-hua Shen-ching Ching-shen-k'o Tsa-chih [Chinese Journal of Neuropsychiatry], Vol 7, No 3, Nov 63, inside back cover) (CONFIDENTIAL)

C-O-N-F-I-D-E-N-T-I-A-L

MANPOWER AND EDUCATION

1. Women Professors at Peking University

Two women professors at Peking University have become noted for their good work and long service to teaching. TS'UI Chih-lan (1508/0037/5695) of the Biology Department did graduate work at Berlin University and has been teaching continuously since returning to China in 1934. CHANG Chin (1728/6930) of the Chemistry Department graduated in chemistry from the University of Michigan and later did research in organic chemistry at the University of Illinois. She has taught at Peking University and other schools for more than 20 years since her return to China in 1934. Besides her classwork, she guides four graduate students and five young instructors and is directing the writing of 13 graduation papers. She also plans to publish a paper on the problems of synthesizing organic medicines in July or August of 1964. (Canton, Chung-kuo Hsin-wen, 10 Mar 64, p 8)

2. New Engineering College

The Cheng-chou Engineering College (Cheng-chou Kung-hsueh-yuan - 6774/1558/1562/1331/7108), the first polytechnic school to be established in Cheng-chou, Honan Province, was officially opened on 25 January 1964.

This college, with its total current enrollment of 1,400 students, was organized by combining mainly the various engineering departments of the Cheng-chou University and is now divided into the five departments of mechanical construction and engineering, electrical engineering, civil and architectural engineering, hydraulic engineering, and chemical engineering, which offer a total of nine specialized courses. (Peiping, Kuang-ming Jih-pai, 9 Feb 64, p 2)

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3. Coal Mining Medical College Founded

The T'ang-shan Coal Mine Medical College (T'ang-shan Mei-k'uang I-hsueh-yuan [0781/1472/3561/4349/6829/1331/7108]), the first school in China to train senior medical workers to treat diseases of coal miners, was officially established in the area of the K'ai-luan Coal Mine in T'ang-shan.

This medical college was founded to meet the needs of China for progressive improvement in the physical health and public health services for coal miners. The curriculum set up by the Department of Medicine of this medical college was designed to meet the needs of coal miners. Besides training personnel to treat internal medical and surgical illnesses of coal miners, the college is training personnel to improve hygiene conditions for miners and to control silicosis, arthritis, and other difficult-to-control occupational diseases of coal miners.

The T'ang-shan Coal Mine Medical College will not only turn out senior medical personnel to staff health organizations in coal mines throughout the country, it will train teachers for intermediate public health technical schools, and it will also be the center for research on and control of occupational diseases of coal miners and the center for medical services for the national system of coal mines.

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A group of experienced professors and lecturers from such medical colleges as those in Peking, Tientsin, and Shanghai have been transferred here, and the Ministry of Coal Industry, the Ministry of Public Health, and other related ministries have provided excellent educational and experimental equipment. (Peiping, Kuang-ming Jih-pao, 5 Mar 64, p 1)

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4. South China Tumor Hospital Established

The South China Tumor Hospital (Hua-nan Chung-liu I-yuan - 5478/0589/5209/4058/6829/7108), enlarged and constructed under the auspices of the oncology section of the Chung-shan Medical College, was recently completed in Canton. It is to be responsible for control and research of oncosis and training specialists.

The hospital has the following divisions of medical service: Radiology, Head and Neck, Chest and Abdomen; Gynecology, and Internal Medicine. It also has X-ray machines, cobalt-60 gun, and radium treatment equipment.

Noted radiologist HSIEH Chih-kuang (6200/1807/0342) was named director of the hospital.

Following opening day ceremonies at the hospital, a scientific discussion on special problems of tumor research was held. Participants at this meeting discussed 104 articles dealing with tumor research. The meeting was attended by WU Heng-hsing (0702/1854/5281), director of the Institute of Oncology of the Chinese Academy of Medical Sciences. Oncologists from Tientsin and Shanghai also attended the discussion. (Peiping, Kuang-ming Jih-pao, 8 Mar 64, p 2)

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5. Shanghai Railroad Medical College

At a meeting on 7 October 1963, Shanghai Railroad Medical College celebrated its fifth anniversary and honored its first graduating class of over 370 students. It was attended by representatives of the Shanghai Bureau of Higher Education and of the Shanghai Bureau of Health.

This college was established in 1958 on the foundations of the former Shanghai Health School of the Railroad Ministry. At that time there were only 25 instructors; while today there are over 150 instructors, of which 28 percent are professors and lecturers. Now there are more than 1,000 students of which over 40 percent are from worker and peasant backgrounds. A Therapeutics Department, a Foundation Department, an Anatomy Department, an Internal Medicine Department, 30 teaching and research sections, and a teaching hospital have been established. (Shanghai, Chieh-fang Jih-pao, 8 Oct 63, p 2)
(CONFIDENTIAL)

6. Western-Style Physicians in Course in Traditional Medicine

On 20 November 1963, 284 Western-style physicians in Shanghai graduated from a 3-year course in traditional medicine and received diplomas.

This training program was begun in 1960 by the Shanghai Bureau of Public Health, in accordance with the party's policy on traditional medicine. The majority of the students were senior medical workers from various medical and public health organizations in Shanghai, and part of the total number were public health cadres.

The majority of the students had preliminary classes on the basic theories and the methods of diagnosing and treatment used in Chinese traditional medicine, and some are already able to carry on research and use their own speciality in combination with the Chinese traditional medical and pharmacological methods in the clinic. Others are able to make diagnoses and give therapy with the aid of the Chinese traditional physicians, and they are helping the older Chinese traditional physicians explain their scientific knowledge and their clinical experience.

LI Chi-hsiao (2621/4949/1321), chief of the ear, nose and throat service in the Shanghai First People's Hospital, while studying under Chang Tsan-ch'en (1728/6363/5256) and HSIA Li-pin (1115/2810/1755), two doctors of Chinese traditional medicine, learned how to use Chinese traditional medicine and pharmacology to treat acute and chronic laryngitis and, with other physicians in internal medicine, wrote two articles on

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Chinese traditional medical treatment of tonsillitis and other diseases of the throat, published in Chung-i Tsa-chih (Journal of Chinese Traditional Medicine).

CHANG Fa-ch'u (1728/4099/0443), Chief of Radiology at the Yang-p'u Central Hospital, after studying Chinese traditional medicine, used the Chinese traditional medical theory of "three burns" along with Western methods in his radiological procedures. He also produced a type of radio-paque medium using swordgrass and other pharmaceuticals, used it in over 1,000 bronchial X-rays, and found the quality better, the price cheaper, and the suffering of the patient less than that of the iodized oil used in the West. WANG Chung-hsien (3076/6945/6343), attending physician at the Second Tuberculosis Hospital, studied Chinese traditional medicine and ch'i-kung therapy. He found that ch'i-kung therapy strengthened the resistance of pulmonary tuberculosis patients and aided them in the recovery of their health. He wrote an article on the use of traditional medicine to diagnose and treat pulmonary hemorrhage of tuberculosis.

The class invited trained and clinically experienced Chinese traditional physicians to establish Chinese traditional medical study and research groups, to cooperate in writing teaching materials and lectures, and to have 54 Chinese traditional physicians go into the various small study groups to give help and guidance.

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HSIA Chung-fang (1115/0112/2455), HUANG Wen-tung (7806/2429/2659), and HSIA Li-pin (1115/3810/1755), all Chinese traditional physicians of long standing, consolidated the many decades of their own clinical experiences, wrote lucid explanations of the secret classical books of Chinese traditional medicine, and were deeply appreciate of the reception given them by the Western-style physicians.

Graduation exercises were attended by YANG Hsi-kuang (2799/6007/0342), Director of the Department of Educational and Public Health Work of the Shanghai Municipal Committee of the Chinese Communist Party, who also spoke. He noted that the Shanghai medical personnel had done much work in strengthening unified cooperation between Chinese traditional and Western-style medicine and stressed the following accomplishments: cooperative efforts were increased; the scientific knowledge and clinical experience of the old Chinese traditional physicians was propounded; and work had been begun on summarizing the effectiveness of Chinese traditional therapy, using a modern scientific approach. The director pointed out that to consolidate these accomplishments, unified cooperation between the two types of physicians would have to be strengthened, ideological training would have to be improved, a skeleton force to do research in Chinese traditional medicine would have to be trained, and conditions would have to be created conducive to research work in Chinese traditional medicine.

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The ceremonies were presided over by WANG Yu-hsien (3769/5124/0341), Director of the Shanghai Municipal Bureau of Public Health. TU Ta-kung (2629/1129/0361), deputy director of the Shanghai Bureau of Public Health, made a speech. Speeches were also made by CH'U Yu-ti (0443/3022/2769), deputy director of the Hung K'ou [Ward] Bureau of Public Health, HSIA Li-pin (1115/3810/1755), representing the teachers, and WANG Chung-hsien (3076/6945/6343), representing the students. (Shanghai, Chief-fang Jih-pao, 21 Nov 63, p 2) (~~CONFIDENTIAL~~)

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NEW PUBLICATIONS AND BOOK REVIEWS

1. Mathematician/Reports Productive Year of Work

Mathematician HUA Lo-keng (5478/5012/1649) has said that 1963 was the most productive year of work in his life. During 1963, he either wrote or participated in the compilation of seven published books. Of these, two were intended for the use of middle school students, two were for college students, one was written for professional mathematicians, and one was a monograph. In addition to these, a book which he wrote for a German encyclopedia was published in China. (Canton, Chung-kuo Hsin-wen, 10 Mar 64, p 4)

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2. New Periodical on Electronic Subjects

The Shanghai/Municipal Electronic Society has initiated a new monthly publication titled Tien-tzu Chi-shu (Electronics Technology). This periodical carries medium-level technical articles on electronic subjects, as well as review and survey articles on various electronic fields. The first two trial issues were published in November and December of 1963, and the first official issue appeared in January 1964. The following is a list of the major articles carried in these first three issues:

No 1, 1963

"Development of Modern Electronic Technology," by MAO Ch'i-shuang (3029/0796/3642), pp 2-4.

"The Titanium Pump -- A New Tool for Obtaining a Vacuum," by HUA Chung-i (5478/0022/0001), pp 5-9.

"Results and Analysis of Experiments With Three-Centimeter Wave Guide Test Lines (First Part)," by the test line team of the Shanghai Municipal Electronics Society, pp 10-14.

"Relay Contact Point Spark Suppressing Circuit," by CHI Ch'u-feng (4472/0328/7364), pp 15-20.

"Problems of Pulse Oscilloscope Circuit Design," by CHAO Tzu-kuang (6392/2737/0342), pp 20-23.

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"How To Improve Efficiency of Earphones," by CH'EN Wan-fu (7115/5502/1788), pp 24-25.

"Plastics in the Electronic Industry," by SHEN Ssu-yueh (3088/1834/4766), pp 26-29.

"An Oil Sump Using Aluminum Oxide As a Substitute for Dry Ice," by CHANG Ch'iang-chi (1728/1730/1015) and CHU Ch'iu-lin (6175/4428/2651), pp 30, 39.

"On Transistor Circuits (I)," by CHANG Ch'ien-ling (4545/0241/5376), pp 31-36.

"Introduction to Two Kinds of Electron Tube voltmeters (First Part)," by CHENG Yu-ch'eng (6774/0642/2052), pp 37-39.

"A Brief Description of Electronic Digital Computers (I)," by SHEN Chih-kuang (3088/1807/1684) and WANG Hao-hsing (3769/6275/5887), pp 40-42.

"The Fei-lo Model 2J1 Transistor Receiver," by MENG Chin (1322/3160), pp 43-45.

"On Scientific and Technical Terminology," by HUNG Ming-yang (3163/2494/2799), p 46.

(continued)

No 2, 1963

"Short-Wave Radio Signal Quality," by WANG Ch'i (3769/3825), pp 1-3.

"Results and Analysis of Experiments with Three-Centimeter Wave Guide Test Lines (Last Part)," by the test line team, Shanghai Municipal Electronics Society, pp 4-7.

"The Use of Cathode Followers in Bioelectric Experiments," by CH'EN Chun-ch'iang (7115/0193/1730) and CH'EN Kuo-k'ang (7115/0948/1660), pp 8-11.

"High-Voltage Ultrahigh voltage Quartz Mercury Lamp Manufacturing Problems," by TS'AI Tsu-ch'uan (5591/4371/3123), HUNG Yung-ch'ing (3163/3057/3237), P'AN Chao-hsiang (3382/0340/4382), and CHANG Ching-fu (1728/7234/3940), pp 12-14.

"Highly Accurate Measurement of Frequencies by the Double-Trace Oscillograph Method," by CH'IU Ch'uan-hsun (6726/0278/6064), pp 15-17.

"How to Balance the Electric-Acoustic Transduction Quality in Telephones," by HSIA Tung (1115/2767), pp 18-21.

"An X-Ray Image Multiplier," by CHOU Ting-hsin (0719/7844/2450), pp 22-26.

"The Problem of Moisture Absorption by Insulating Material in the Telecommunications Industry," by HUANG Chin-ju (7806/6930/3067), pp 26-29.

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(continued)

"Technique of Experimentally Producing Glass Glaze Capacitors by the Rolled Thin Film Method," by CHOU Ta-fu (0719/6671/1133), pp 30-32.

"On Transistor Circuits (II)," by CHANG Ch'ien-ling (4545/0241/5376), pp 33-37.

"Introduction to Two Kinds of Electron Tube Voltmeters (Last Part)," by CHENG Yu-ch'eng (6674/0642/2052), pp 38 and 39.

"A Brief Description of Electronic Digital Computers (II)," by SHEN Chih-kuang (3088/1807/1684) and WANG Hao-hsing (3769/6275/5887), pp 40-43.

"A Suggestion for the Method of Using Unit Symbols in Electrical Engineering and Radio Literature," by CHIEH Min (2638/3046), p 44.

"The Mei-to Model 28A Transistor Portable Radio," by SHEN Yu-cheng (3088/0056/1767), pp 45, 46.

No 1, 1964

"The Rapid Development of Microwave Technology," by CH'EN Han-k'uei (7115/3211/1145), pp 2-5.

"Measures To Prevent Mildew of Insulating Materials Used in Radios," by CH'EN Ch'un-ch'eng (7115/2504/2052), CHU Chien-hua (4376/1696/5478), and WANG Shan-yuan (3769/0810/0337), pp 6-8.

(continued)

"Research on Noise Characteristics of Junction-Type Transistors," by LIN Jung-fu (2651/2837/1381) and JUAN Shun-ling (7086/7311/6875), pp 9-13.

"The Problem of Electrical Leakage From Radio Oscillators," by KU Hsieh-hsiang (7357/3610/4382), pp 14-17.

"The Method of Devising a Code for an Electrically Operated Teletypewriter and Its Deficiencies," by YING Ch'eng-wen (2019/6134/2429), pp 17-20.

"Metallic Oxide Diaphragm Resistors," by WANG Ch'ao-yang (3769/2600/7122), pp 21-24.

"Applications of Modern Magnetic Amplifiers," by WANG Sen (3769/2773), pp 25-27.

"Electrostatic Sound Recording System," translated by CHOU Wei-ch'eng (0719/4850/1004), pp 28-30.

"On Transistor Circuits (III)," by CHANG Ch'ien-ling (4545/0241/5376), pp 31-35.

"Measurement of Electrical Inductance Components and Applications of the Q Meter (I)," by LI Tzu-ch'ing (2621/1331/0615), pp 36-38.

"A Brief Description of Electronic Digital Computers (III)," by SHEN Chih-kuang (3088/1807/1684) & WANG Hao-hsing (3769/6275/5887), pp 39-43.

"The Model GT-2 Electron Tube Characteristic Oscillograph," by KENG Ming-huan (5105/2494/1403), pp 44, 45. (CONFIDENTIAL)

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FOREIGN TRAVELS AND CONTACTS

1. French Engineering Delegation in Peiping

A 15-man French construction and civil engineering delegation, led by Francois Yapiao [Chinese rendition of French name], a former member of the French Parliament, arrived in Peiping from Canton, by plane, on 15 March 1964. They were invited to China to study civil and construction engineering. (Peiping, Jen-min Jih-pao, 16 Mar 64, p 3)

2. Canadian Biochemist in China

NIEH Jung-chen (5119/2837/5271), Deputy Premier of the State Council, on 18 March 1964, in Shanghai, met Professor Elliot, chairman of the Biochemistry Department of McGill University in Canada, director of the Experimental Neurochemistry Laboratory of the Montreal Institute of Neurology of McGill University, and advisor in biochemistry at the Royal Victoria Hospital, and his wife. Professor and Mrs. Elliot arrived in Shanghai from Peiping on 15 March 1964. (Peiping, Jen-min Jih-pao, 19 Mar 64, p 3)

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Chinese Scientists at Soviet Nuclear Spectroscopy Conference

WANG Ch'uan-p'eng and HAN Shu-jun were two of the coauthors of the report, "Positrons in the Disintegration of Yb^{167} ," presented in Russian at the 14th Annual Conference on Nuclear Spectroscopy, held in Tbilisi on 14-22 February 1964. The other coauthors included K. Ya. Gromov, Zh. Zhelev, V. V. Kuznetsov, Ma Ho Ik, G. Musiol', A. F. Novgorodov, and V. A. Khalkin. The report was received by the Organization Committee in August 1963. (Moscow, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol 28, No 2, 26 Feb 64, pp 252-256)

Chinese Paper Presented at Soviet Ferroelectrics Conference

MENG Hsien-chen was co-author with A. G. Gurevich, S. S. Starobinets, V. I. Solv'yev, and I.E. Myl'nikova of the paper, "Anisotropy of the Resonance Curve Width in Yttrium Garnet With Rare Earth Admixtures," presented in Russian at the Symposium on Ferromagnetism and Ferroelectrics Effect, held in Leningrad on 30 May-5 June 1963. (Moscow, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol 28, No 3, 6 Mar 64, pp 462-469)

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BIOGRAPHIC INFORMATION

Geophysical Society of China

The following 31 persons were elected directors and officers of the Geophysical Society of China in Peiping on 16-21 September 1963:

Members of Board of Directors:

WEI I-ch'ing (5898/0001/3237)
WANG Tzu-ch'ang (3769/1311/2490)
WANG Kang-tao (3769/4854/6670)
WANG Ching-yao (3769/2417/1031)
FANG Chun (2455/0193)
FU Cheng-i (0265/2110/5030)
LUNG Hsien-ling (7893/0752/7227)
CHU Kang-k'un (2612/1511/2492)
LIU Cheng-chien (0491/2110/0256)
KU Ching-lin (6253/2529/2651)
LI Shan-pang (2621/0810/6721)
WU T'ien-chi (0702/1131/3444)
SU Shih-wen (5685/1102/2429)
CHOU Ching-han (0719/6975/3211)
CHOU Wei (0719/3555)
CH'EN Chih-ch'iang (7115/1807/1730)
CH'EN Piao (7115/1753)
CHAO Chiu-chang (6392/0046/4545)
CHAO Jen-shou (6392/0088/1108)
CHAO Wen-chin (6392/2429/3160)
CHANG Jen (1728/0088)
MENG Erh-sheng (1322/1422/4141)
WENG Wen-po (5040/2429/3134)
MEI Shih-jung (2734/0013/5554)
P'ENG Shan (1756/1472)
HSIEH Ts'ai-hsien (6200/6846/6343)
HSIEH Yu-shou (6200/3022/1108)
TSENG Jung-sheng (2582/5816/3932)
KU Kung-hsu (7357/0501/0650)
CHIANG Hsueh-ming (5592/1331/2494)
TAN Cheng-tse (6223/2110/3419)

Standing Members of Board of Directors

Chairman: KU Kung-hsu (7357/0501/0650)
Vice-chairman: WENG Wen-po (5040/2429/3134)
Secretariat: FU Cheng-i (0265/2110/5030)
Assistant Secretariat: CH'EN Kung-o (7115/3163/7725)
 CHAO Wen-chin (6392/2429/3160)
 LING P'ei-ming (0407/3099/6900)

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(Peiping, Ti-ch'iu Wu-li Hsueh-pao [Acta Geophysica Sinica], Vol 12,
No 2, Dec 63, p 216)

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Academies and Institutes

CHANG Hsueh-shang (1728/1331/0006), Shensi Institute of Soil and Fertilizer; author of an article, "Mignonette Green Manure for Kuan-chung Wheat Fields." (Peiping, Nung-yeh Chi-shu [Agricultural Techniques], No 5, May 63, pp 10-11)

CH' IEN Jui (6929/6904), Southwest Institute of Zoology, Chinese Academy of Sciences; author of an article, "Changes in the Human Body Through the Process of Aging." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 1, 25 Jan 64, pp 30-32)

LI Fan (2621/3879), Institute of Genetics, Chinese Academy of Sciences; author of an article, "Experiments on the Changing of Spring Wheat to Winter Wheat." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 1, 25 Jan 64, pp 33-38)

LI Tso-chou (2621/0155/5297)

LIN Shou-k'ang (2651/1108/1660)

Both of the Sericulture and Mulberry Institute, Chekiang Provincial Academy of Agricultural Sciences; coauthors of an article, "Technology of Growing Mulberry Trees from Seed." (Peiping, Nung-yeh Chi-shu [Agricultural Techniques], No 5, May 63, pp 12-14)

CHOU Wei-shan (0719/4850/0810), Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai; author of an article, "Synthesis of Spirolactone and Its Related Compounds." (Peiping, Yao-hsueh Hsueh-pao [Acta Pharmaceutica Sinica], Vol 10, No 12, Dec 63, pp 751-768)

HSIA Yu-tien (1115/4416/3949) Kiangsu Branch, Chinese Academy of Agricultural Sciences; author of an article, "Prevent Gibberella in Wheat Fields by Improving Drainage Ditches." (Peiping, Nung-yeh Chi-shu [Agricultural Techniques], No 5, May 63, p 19)

HSIUNG Chu-hsiang (3574/1446/4382), Institute of Food Sciences (Liang-shih K'o-hsueh Yen-chiu So; 9037/7380/4430/1331/4282/4496/2076), Chekiang Provincial Academy of Agricultural Sciences; author of an article "Use '401' To Prevent Sweet Potato Rot." (Peiping, Nung-yeh Chi-shu [Agricultural Techniques], No 10, Oct 63, pp 16-17)

HSU Jen (1776/0088), Institute of Botany, Chinese Academy of Sciences; author of an article "Research and Application to Paleobotany." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 1, 25 Jan 64, pp 1-6)

C-O-N-F-I-D-E-N-T-I-A-L

KUO Yu-hai (4753/5940/2037)

HSU Huai-kao (6079/5940/7559)

KUO of Shansi T'ai-hsing Middle School and HSU of Shansi Southeast Institute of Agriculture; coauthors of an article, "Soil Microbes and the Agricultural Harvest." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 6, Nov 63, pp 12-14)

LIANG Hsien-yuan (2733/5029/0955), Institute of Oceanography, Chinese Academy of Sciences; author of an article, "Enteropneusta." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 1, 25 Jan 64, pp 22-27)

LIU Ch'ang-chih (0491/2490/2523), Institute of Oil-Bearing Crops (Yu-liao Yen-chiu So; 3111/2436/4282/4496/2076), Chinese Academy of Agricultural Sciences; author of an article, "Rape Planting in Paddy Rice Stubble Fields." (Peiping, Nung-yeh Chi-shu [Agricultural Techniques], No 8, Aug 63, pp 16-17, 20)

LIU Yung-hsiung (0491/3056/3574), Institute of Tobacco, Chinese Academy of Agricultural Sciences; author of an article, "Tobacco Crop Rotation Can Control Blackleg." (Peiping, Nung-yeh Chi-shu [Agricultural Techniques], No 5, May 63, p 17)

TING Li-jen (0002/4539/0086), East China Institute of Entomology, Chinese Academy of Sciences; author of an article, "Mating of Scorpions." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 6, Nov 63, pp 23-24)

WANG Hsien-p'u (3769/3759/3302)

CHIANG Shu (1203/1859)

CHENG Hui-ying (6774/1979/3853)

LI Shih-ying (2621/0013/5391)

CH'EN Ch'ang-tu (7115/2490/4648)

All of Institute of Botany, Chinese Academy of Sciences; coauthors of an article, "The Present Situation of the Development of Geobotany in China." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 6, Nov 63, pp 1-6)

WANG Jui-ch'i (3769/3843/3823), Institute of Animal Husbandry and Veterinary Medicine, Shansi Provincial Academy of Agricultural Sciences; author of an article, "Green Stored Corn Stalks in Pit Half Below Ground Level." (Peiping, Nung-yeh Chi-shu [Agricultural Techniques], No 8, Aug 63, p 51)

WU Ju-k'ang (0702/3067/1660), Institute of Vertebrate Paleontology, Chinese Academy of Sciences; author of an article, "Several Theoretical Questions on the Origin of Man." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 6, Nov 63, pp 34-40)

C-O-N-F-I-D-E-N-T-I-A-L

WU Pao-chuang (0702/5508/1641), Kwangtung Provincial Institute of Scientific and Technical Information (Kuang-tung Sheng K'o-hsueh Chi-shu Ch'ing-pao Yen-chiu-so; 1684/2639/4164/4430/1331/2111/5890/1906/1032/4282/4496/2076); author of a short article on papaya. (Peiping, Nung-yeh Chi-shu [Agricultural Techniques], No 10, Oct 63, pp 31-32)

YANG P'ei-yuan (2799/1014/0954)

WU Chi-jung (0702/7162/2837)

Both of the Institute of Farm Irrigation (Nung't'ien Kuan-kai Yen-chiu So; 6593/3944/3487/3346/4282/4496/2076), Chinese Academy of Agricultural Sciences; coauthors of an article "Water Requirements and Irrigation Regulations for Winter Wheat in Ching-chiao." (Peiping, Nung-yeh Chi-shu [Agricultural Techniques], No 10, Oct 63, pp 6-8)

C-O-N-F-I-D-E-N-T-I-A-L

Universities and Colleges

- CH'AI Chien-hua (2693/1696/5478), Institute of Genetics, Fudan University, Shanghai; author of an article, "Molecular Disorders and Heredity." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 6, Nov 63, pp 41-44)
- CHAO Shu-chiang (6392/6615/3068), South China Mining and Metallurgy College; author of an article, "How to Treat the Problem of Weight Loss and Excess Weight." (Peiping, Wu-li T'ung-pao [Physics Bulletin], No 2, Apr 63, pp 109-111)
- CHENG Fang (6774/2455), vice-president of Ch'eng-tu Engineering College (Peiping, Chinjih Hsin-wen, 17 Jan 64, p 2)
- CH'EN Ch'i-ao (6929/0366/3870), lecturer and vice-chairman of the semiconductor teaching and research section, Physics Department, Nan-k'ai University. (Canton, Chung-kuo Hsin-wen, 21 Jan 64, p 6)
- FANG Tsung-hsi (2455/1350/3556), Shantung College of Oceanography; author of an article, "A Discussion on Weismann's Germ Plasma Theory." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 1, 25 Jan 64, pp 39-44)
- FANG Tsung-hsi (2455/1350/3556), Shantung College of Oceanography; author of an article, "New Way of Recombining Genes." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 6, Nov 63, pp 31-34)
- HSU Wei-liang (1776/4840/5328), Kunming College of Agriculture and Forestry; author of an article, "Termites." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 1, 25 Jan 64, pp 19-21)
- KAO Ch'ung-shou (7559/1504/1108), Physics Department, Peking University; author of a research note, "On the Theory of Intermediate Bosons of Weak Interaction and the CP-Non-Invariance." (Peiping, Wu-li Hsueh-pao [Acta Physica Sinica], Vol 20, No 2, Feb 64, pp 184-187)
- K'O Chao (2688/0664), vice-president of Szechwan University (Peiping, Chinjih Hsin-wen, 17 Jan 64, p 2)
- K'O Ta-hsu (2688/1129/6103), Harbin Electrical Engineering College; author of an article "A Problem Concerning Free Path in a Situation of Internal Migration." (Peiping, Wu-li T'ung-pao [Physics Bulletin], No 2, Apr 63, pp 81-83)

C-O-N-F-I-D-E-N-T-I-A-L

- KUO Ch'i-chen (6753/1142/3791), Department of Biology, Amoy University;
Author of an article, "A Medication for Sterilizing Insects."
(Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 6, Nov 63,
pp 19-20)
- LAN Shu-ch'eng (5663/2579/2052), Department of Biology, Kirin Normal
University; author of an article, "Preparation and Application of
a Platform for Immobilizing the Heads and Bodies of Birds."
(Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 1,
25 Jan 64, pp 28-29)
- LI Jung-ho (2621/2837/0735)
CH'EN K'o-kuei (7115/0668/6311)
Both of Kirin Agricultural University; coauthors of an article,
"How To Distinguish Between Male and Female Wild Grapes." (Peiping,
Nung-yeh Chi-shu [Agricultural Techniques], No 8, Aug 63, pp 28,30)
- LI Tsung-tao (2621/1350/6670), Hunan Agricultural College; author of an
article, "Ramine, Wintertime Green Manure." (Peiping, Nung-yeh
Chi-shu [Agricultural Techniques], No 10, Oct 63, p 30)
- NIEH Ho-min (5119/0735/3046), Peking Agricultural University; author of
an article, "The Effect of Temperature and Water on Chinese Cabbage
Seedlings." (Peiping, Nung-yeh Chi-shu [Agricultural Techniques],
No 8, Aug 63, p 25)
- SHEN Yung-chao (3088/3057/2507), Physics Department, Kiangsu Normal
College; author of an article "Problems of Teaching Fluid Mechanics
in Higher Middle School." (Peiping, Wu-li T'ung-pao [Physics
Bulletin], No 2, Apr 63, pp 99-102)
- SZU T'u-ya (0674/1778/7161), Department of Biology, Peking Normal
University; author of an article, "Chamaeleon Vulgaris." (Peiping,
Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 6, Nov 63, pp 25-27)
- T'AO Yun (7118/0061), Fudan University; author of a research note,
"On the Cluster Expansion Method in Quantum Statistical Mechanics."
(Peiping, Wu-li Hsueh-pao [Acta Physica Sinica], Vol 20, No 2,
Feb 64, pp 174-183)
- TS'UI Huai-liang (1508/3232/2733), Anhwei Agricultural College; author
of an article, "How To Read Botanical Names Which Are in Latin."
(Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 6,
Nov 63, pp 15-18)
- WANG Yen-sheng (3769/3601/3932), Physics Section, Northeast Engineering
College; author of an article, "Comments on Tacking a Sailboat."
(Peiping, Wu-li T'ung-pao [Physics Bulletin], No 2, Apr 63, pp 107-109)

C-O-N-F-I-D-E-N-T-I-A-L

WU Hao-yuan (0702/3185/3293), Department of Biophysics, China University of Science and Technology; author of an article, "The Carbon Cycle During Photosynthesis." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 1, 25 Jan 64, pp 7-11)

WU Jung (0702/5816), Shantung College of Oceanography; author of an article, "Observations of Sex Cell Meiosis in Locusts." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 6, Nov 63, pp 21-22)

YANG Hung-yuan (2799/1738/6678), Department of Biology, Wuhan University; author of an article, "Several Problems in Pollen Physiology." (Peiping, Sheng-wu-hsueh T'ung-pao [Biology Bulletin], No 5, Nov 63, pp 7-11)

YIN Tao-lo (1438/6670/2867)

CHANG Chin-lung (1728/6855/7893)

K'UNG Ching-hu (1313/1987/5706)

All of the Physics Department, Peking University; coauthors of a research note, "The Distribution of Dislocation in the Vicinity of Sub-grain Boundary in Na-CL." (Peiping, Wu-li Hsueh-pao [Acta Physica Sinica], Vol 20, No 2, Feb 64, pp 190-192)

C-O-N-F-I-D-E-N-T-I-A-L

HUA Shu-fang (5478/2885/5364), of the Institute of Fur Animals, China Academy of Agricultural Sciences; and the Kirin Provincial Special Products Research Institute; author of an article, "Preliminary Observations on the Manchurian Raccoon and Trial Raising." (Peiping, Chung-kuo Ch'u-mu Tsa-chih [Chinese Animal Husbandry Journal], Vol 1, No 1, Jul 63, pp 26-28) (CONFIDENTIAL)

TUNG Wei (5516/0251)

YANG So-hsiao (2799/6956/1321)

TENG Yin-chang (6772/5593/2874)

CHENG P'ei-liu (6774/0012/3966)

All of the Institute of Animal Husbandry, China Academy of Agricultural Sciences; coauthors of an article, "Some Factors Related to the In Vitro Viability of Hog Spermatozoa." (Peiping, Chung-kuo Ch'u-mu Shou-i [Chinese Animal Husbandry and Veterinary Medicine], No 4, Apr 63, pp 1-4) (CONFIDENTIAL)

YANG Chih-k'uei (2799/2535/1145)

WANG Yung-chung (3769/3057/1813)

Both of the Institute of Fur Animals, China Academy of Agricultural Sciences and of the Kirin Provincial Special Products Research Institute; coauthors of an article, "Beaver-Raising." (Peiping, Chung-kuo Ch'u-mu Shou-i [Chinese Animal Husbandry and Veterinary Medicine], No 4, Apr 63, pp 16-17) (CONFIDENTIAL)

C-O-N-F-I-D-E-N-T-I-A-L

Chinese Scientists in USSR

- CHANG I, Joint Institute of Nuclear Research; coauthor with I. A. Golutvin, V. D. Inkin, Yu. A. Karzhavin, E. I. Mal'tsev, V. D. Neustroyev, and V. D. Stepanov of article, "Measurement of Parameters of Multiple Scattering on Photographs of Tracks in a Xenon Cell," in Russian, received for publication on 13 March 1963. (Moscow, Priory 1 Tekhnika Eksperimenta, No 1, Jan Feb 64, p 97)
- CH'I T'ien-mao, Institute of Virology, Academy of Medical Sciences USSR; co-author with L. Ya. Zakstel'skaya and L. V. Feklisova of article, "Outbreak of Diseases Caused by Coxsackie B6 Virus," in Russian. (Moscow, Pediatriya, No 3, Mar 64, pp 77-78)
- CH'I T'ien-mao, Institute of Virology, Academy of Medical Sciences, USSR; author of a dissertation for the scientific degree of Candidate of Medical Sciences, "The Role of Respiratory and Intestinal Viruses in the Etiology of Diarrhea and Catarrh of the Respiratory Tract in Small Children," in Russian. (Moscow, Vechernyaya Moskva, 6 Mar 64, p 4)
- CHOU Jun-p'ei, Institute of Organoelemental Compounds, Academy of Sciences USSR; coauthor with V. V. Korshak and S. V. Rogozhin of article, "Derivation of Polymer Products From p-Cymene," in Russian; received for publication on 10 September 1962. (Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 2, Feb 64, pp 357-361)
- CHOU P'ei-huang, Institute of Chemical Physics, Academy of Sciences USSR; coauthor with V. F. Tsepalov and V. Ya. Shlyapintokh of article, "Kinetics of the Co-oxidation of Cumene and Ethylbenzene: 2. Determination of the Rate Constants of the 'Crisscross' Reactions of Chain Propagation and Termination," in Russian; received for publication on 21 December 1962. (Moscow, Akademiya Nauk SSSR, Zhurnal Fizicheskoy Khimii, Vol 38, No 2, Feb 64, pp 351-355)
- CHUNG Chia-jung, author of article, "On Selenium-Containing Antimony-Mercury Formations," in Russian; first published in Trudy Institut Mineralogii, Geokhimii, i Kristallokhimii Redkikh Elementov, No 10, October 1963, pages 158-170. (Moscow, Letopis' Zhurnal'nykh Statey, No 8, 15 Feb 64, p 63)
- FANG Shu-sen, Ural Polytechnic Institute; coauthor with A. A. Popov, L. Ye. Popova, and G. L. Kuruklis of article, "Dispersion Hardening Alloys for Cast and Hard Faced Tools," in Russian; received for publication on 7 December 1962. (Moscow, Izvestiya Vysshikh Uchebnykh Zavedeniy, Chernaya Metallurgiya, No 2, 28 Jan 64, pp 124-128)

C-O-N-F-I-D-E-N-T-I-A-L

FEN Shi-shan, coauthor with A. A. Lukin of article, "Transient Phenomena in Semiconductors of Diodes During 'Short' Direct Current Impulses," in Russian; first published in Trudy Moskovskogo Energeticheskogo Instituta, No 50, 1963, pages 74-92. (Moscow, Letopis' Zhurnal'nykh Statey, No 12, 14 Mar 64, p 84)

HAN Shih-tse, coauthor with V. V. Pogodina of article, "The Use of the Method for Intravenous Blood-Taking From the Retroorbital Venous Plexus in Small Rodents in Field and Laboratory Practice," in Russian; first published in Voprosy Virusologii, No 4, 1963, pages 510-512. (Moscow, Meditsinskiy Referativnyy Zhurnal, No 3, Sec 3, Mar 64, p 25)

HANG Tieh-p'ing, coauthor with I. A. Muraz'yeza, K. B. Zaborenko, and O. G. Nemkova, of article, "Determination of the Solubility of Precipitated Uranyl Phosphates of Alkali Metals by Tracers," in Russian; received for publication on 13 July 1963. (Moscow, Akademiya Nauk SSSR, Radiokhimiya, Vol 6, No 1, 22 Feb 64, pp 124-127)

HU Ch'i-heng, author of article, "Application of the Principle of Maximums for Optimizing the Operation of a Tool With Internal Feedback," in Russian; first published in Trudy Moskovskogo Instituta Khimicheskogo Mashinostroyeniya, Volume 25, 1963, pages 200-213. (Moscow, Letopis' Zhurnal'nykh Statey, No 8, 15 Feb 64, p 87)

HUANG Shang-yao, Moscow Geological Prospecting Institute imeni S. Ordzhonikidze; author of article, "On the Method of Hydrogeological Investigations of Thermal Water Deposits," in Russian. (Moscow, Izvestiya Vysshikh Uchebnykh Zavedeniy, No 3, Mar 64, pp 96-104)

LANG Chang-hsin, coauthor with A. M. Vlasov of article, "On Gas Pressing in an Aquifer," in Russian; received for publication on 9 January 1963. (Moscow, Akademiya Nauk SSSR, Inzhenerniy Zhurnal, Vol 4, No 1, 6 Mar 64, pp 130-133)

LIEH T'i-k'eng, coauthor with I. I. Chernyayev and N. N. Zheligovskaya of article, "Absorption Spectra of Ethylenediaminechloro-Compounds of 4-Valent Platinum," in Russian; received for publication on 4 January 1963. (Moscow, Akademiya Nauk SSSR, Zhurnal Neorganicheskoy Khimii, Vol 9, No 3, Mar 64, pp 569-575)

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- LIEH T'i-k'eng, coauthor with I. I. Chernyayev, N. N. Zheligovskaya, and D. V. Kurganovich of article, "Some Ethylendiamine-Derivatives of 4-Valent Platinum," in Russian; received for publication on 27 December 1962. (Moscow, Akademiya Nauk SSSR, Zhurnal Neorganicheskoy Khimii, Vol 9, No 3, Mar 64, pp 562-568)
- LIU Kuang-yu, Institute of Petrochemical Synthesis, Academy of Sciences USSR; coauthor with Yu. B. Kaga, A. N. Bashkirov, and G. A. Kliger of the article, "Synthesis of Secondary Alkylamines From Carbon Monoxide, Hydrogen, and Methylamine," in Russian; received for publication on 3 May 1963. (Moscow, Akademiya Nauk SSSR, Neftekhimiya, Vol 4, No 1, Jan-Feb 64, pp 106-110)
- P'AN Chi, Chinese specialist, author of article, "Experimental Determination of Frequency Characteristics and Parameters of Synchronous Machines from the Experiments of Feeding Exciting Windings for Stationary Machines," in Russian; first published in Sbornik Rabot po Voprosam Elektromekhaniki, No 10, 1963, pages 205-211. (Moscow, Letopis' Zhurnal'nykh Statey, No 12, 14 Mar 64, p 79)
- TSENG Ch'ing-hua, Moscow Agricultural Academy; author of article, "On the Problem of the Formation of Riverbeds at the Bend of a Stream," in Russian; first published in Doklady Timiryazevskogo Sel'skokhozyaystvennogo Akademiya, No 87, 1963, pages 327-332. (Moscow, Letopis' Zhurnal'nykh Statey, No 12, 14 Mar 64, p 50)
- WANG Ken-shih, Department of Inorganic Chemistry, Moscow State University; coauthor with L. N. Komissarova, Vikt. I. Spitsyn, and Yu. P. Simanov of article, "The System $\text{La}_2\text{O}_3\text{-HfO}_2$," in Russian. (Moscow, Akademiya Nauk SSSR, Zhurnal Neorganicheskoy Khimii, Vol 9, No 3, Mar 64, pp 693-697)
- WANG Ming-fu, Moscow Agricultural Academy; author of article, "Laws for the Distribution of Sandbanks on Branched Riverbeds," in Russian; first published in Doklady Timiryazevskogo Sel'skokhozyaystvennogo Akademiya, No 87, 1963, pages 319-326. (Moscow, Letopis' Zhurnal'nykh Statey, No 12, 14 Mar 64, p 48)
- WANG T'ung-seng, co-author with I. Brandshtetr. K. A. Gavrilov, Ye. Gvoz'd', Ya. Maly, and M. Taube of article, "Extraction Properties of Fermium and Mendelium (TBF [Tributyl Phosphate] - HNO_3 , TBF- HCl)," in Russian; received for publication on September 1962. (Moscow, Akademiya Nauk SSSR, Radiokhimiya, Vol 6, No 1, 22 Feb 64, pp 26-33)

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Others

- CH'A Ch'uan-hsing (2682/0356/1840), author of an article, "Progress in the Theory of Passivation of Metals" [review article]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 11, Nov 63, pp 15-19 & 5)
- CHANG Chu-chun (4545/4554/0689), author of an article, "Ion Exchange Paper Chromatography" [review article article on state of the art]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 10, Oct 63, pp 48-55)
- CHANG Tao-tao (4545/6670/6670), Author of an article, "Nonclassical Carbonium Ions," [review article using 109 references, dated 1918-1962]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 9, Sep 63, pp 8-18)
- CHANG Ting-wu (1728/1353/2976), author of an article, "Radiation Polymerization" [Brief review of broad subject giving recognition to unresolved problems]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 10, Oct 63, pp 14-27 and 62)
- CH'EN Chen-huan (7115/7201/1403), author of an article, "Color of Inorganic Compounds" [review article on state of the art]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 10, Oct 63, pp 43-48)
- CH'EN Ming-shan (7115/2494/3503), author of an article, "An Introduction to Micro-Quantitative Determination of N-Methyl Group" [review article]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 9, Sep 63, pp 60-62)
- CH'EN Shou-hsi (7115/1108/5082), author of an article, "Some Applications of the Electron Microscope in Polymer Research" [Review article on the state of the art]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 9, Sep 63, pp 26-33)
- CH'EN Szu-chen (7115/0934/4631), author of an article, "Precipitation of Hydroxides or Basic Salts From Homogeneous Solutions and in Small Volume" [review article of state of the art stating that the most recent work on small volume precipitation has been done in China]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 11, Nov 63, pp 1-5)
- CH'EN Wan-i (7115/5502/5030), author of an article, "The Chemistry of O, O-Dialkyl Dithiophosphates" [review article using 166 references, including several US and British patents]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 9, Sep 63, pp 44-55)

C-O-N-F-I-D-E-N-T-I-A-L

CH'ENG Chih-hsiang (4453/1807/5046), author of an article, "Uses of Stable Isotopes" [review article with emphasis on application]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 9, Sep 63, pp 38-43 and 64)

CHOU T'ung-hui (0719/0681/1920), author of an article, "Phase Solubility Analysis" [review article on state of the art]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 10, Oct 63, pp 1-4, 13)

CHU Hsiang (2612/5046), author of an article, "Rapid Determination of P_2O_5 in Phosphorous Ores and Fertilizers" [laboratory practice]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 10, Oct 63, pp 60-62)

CHUANG Hung-hsin (1641/1347/9515), author of an article, "Method of Calculating Physicochemical Properties of Some Organic Compounds" [calculations based on reference data]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 9, Sep 63, pp 34-37)

CH'UEH Chen-huan (7067/2182/1403)

YANG Ju-lin (2699/3067/3829)

Coauthors of an article, "Hydrolysis of Palladium, Rhodium, and Iridium Chloro-Complexes" [original research]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 11, Nov 63, pp 49-54, 36)

HU Ping-sheng (5170/3521/5808), author of an article, "Application of Direct Spectrophotometry in Analysis of Nucleic Acids" [review article on state of the art]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 9, Sep 63, pp 1-7)

HU Yu-nu (5170/0642/3668), author of an article, "Some Basic Problems on the Application Properties of Natural Laytex" [review article]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 11, Nov 63, pp 20-28)

HUANG Nien-ning (7806/1819/1380), author of a research note, "On the Ambiguity in the Partial Wave Analysis of Photo-pion Production Process." (Peiping, Wu-li Hsueh-pao [Acta Physica Sinica], Vol 20, No 2, Feb 64, pp 188-190).

KAO Chia-lung (7559/1367/7127)

SUN Min (1327/2404)

SUNG Yu-ch'in (1345/3768/3830)

Coauthors of an article, "Paper Chromatography of Mercury and Its Semiquantitative Determination" [original research]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 11, Nov 63, pp 46-49)

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KAO Yang (7559/2254), author of an article, "Potential Theory of Adsorption of Gases and Vapors and Its Application" [review article on state of the art]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 10, Oct 63, pp 28-37)

KUAN Hsing-ya (7070/5281/0068), "Synthesis of Nitriles by Ammoxidation" [review article]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 11, Nov 63, pp 29-36)

LI Kuo-ts'ai (2621/0948/2624), author of an article, "Derivation for the Calibration Equation of Weights" [laboratory practice]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 9, Sep 63, pp 63-64)

LI P'ei-chih (2621/1014/0037), author of an article, "Voltammetry With a Stationary Mercury Electrode" [review article on state of the art]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 10, Oct 63, pp 38-42 and 37)

LIN Chang-shan (2651/7022/1472)

TS'AI Ch'i-hsiu (5591/6386/4423)

Co-authors of an article, "Spectrophotometric Determination of Thallium (III) by Xylenol Orange" [original research]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 10, Oct 63, pp 56-59)

LIU Ch'un-yang (0491/2504/7122)

HSIAO Kuang-yen (5618/0342/8827)

Coauthors of an article, "Dual Character of Nickel-Alumosilicate Catalysts" [original research]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 11, Nov 63, pp 44-46)

LO Chung-chien (5012/1813/7002), author of an article, "D.C. Galvanometer as a Null Point Indicator in Conductivity Measurement With A.C. Bridge" [laboratory practice]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 11, Nov 63, pp 60-62)

LU K'o-chia (7120/0344/1367)

P'O Hsi-san (2613/4406/0005)

Coauthors of an article, "Separation of Dithiocarbonates and Thiurams by Reverse Phase Paper Chromatography" [laboratory practice]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 11, Nov 63, pp 55-57)

P'ENG Hsin-sheng (1756/2450/3932)

HU Chen-ya (5170/2182/0068)

Coauthors of an article, "The Preparation of Perfluorocarboxylic Acids and Their Derivatives by Electrolytic Fluorination" [review article on state of the art]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 10, Oct 63, pp 5-13)

C-O-N-F-I-D-E-N-T-I-A-L

T'AN Jui-t'ing (6151/3843/1656), author of an article, "Three-Electron Bond and the Molecular Structure of Certain Oxygen-Containing Substances" [review article]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 9, Sep 63, pp 19-25)

TS'ENG Kuang-chieh (2582/1684/2784), author of an article, "Some Developments in Theoretical Problems of Covalent Bonds in Organic Compounds" [review article using references as late as 1962 and 1963]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 11, Nov 63, pp 6-14 and 43)

YANG Ping-yu (2799/0014/7183), author of an article, "Arsenazo III and Its Uses," [research following USSR developments using Russian references exclusively]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 9, Sep 63, pp 56-59 and 55)

YAO Kan-yuan (1202/0051/0337)

CH'EN Shu-hsi (7115/2562/2569)

Coauthors of an article, "Gel Filtration" [review article on state of the art]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], Vol 11, Nov 63, pp 37-43)

YEN Chung (0917/1813)

CHANG Ho-che (1728/3109/0773)

Coauthors of an article, "A Simple Apparatus for Measuring Dipole Moment" [laboratory practice]. (Peiping, Hua-hsueh T'ung-pao [Chemistry Bulletin], No 11, Nov 63, pp 57-60)

SELECTED TRANSLATIONS FROM
CHINESE MEDICAL JOURNAL

TREATMENT OF GLAUCOMA WITH SERIOUS LOSS
OF VISUAL FIELDS

Translation of excerpts of an article by Liu Chin-ch'i (0491 1367 3823) and Chiang Jun-chin (5592 3387 6855) of the Graduate Study Group of Ophthalmology, First Hospital, Peking College of Medicine, in the Chinese-language periodical, Chung-hua I-hsueh Tsa-chih (National Medical Journal of China), Vol. 49, No. 6, June 1963, pages 345-350.

At present, ophthalmologists generally agree on the treatment of primary glaucoma. However, when the disease is in its final stage, when only the paracentral or the central field of vision remains, the ophthalmologists do not have the same opinions regarding treatment. Some believe surgery should not be permitted at this stage, because the sudden drop of tension brought about by the surgery may cause minute capillary hemorrhages from the chorio-capillaries in the macular region, or even cause macular detachment, and complete blindness may result. The abrupt pressure changes may also sever the remaining nerve fibers against the scleral spur and within the cribriform plate. Or, the pressure drop may cause hemorrhage in the central retinal vessels and the small contracted residual visual field may become completely wiped out. (1) Other scientists believe that if drugs fail to bring improvement, surgery becomes the only recourse.

Both sides of the argument have presented statistical information to support their own point of view. In China, reports on this subject have been lacking in the past. Hereby, we gathered the information of a few cases of severe glaucoma (with the paracentral field of vision not exceeding 10° , and in some cases not exceeding 5°) and selected those cases of whom we have complete records with regard to visual fields and intra-ocular pressure before and after the treatment. There are 98 cases, with a total of 108 diseased eyes altogether.

In the past, the author had a tendency of being conservative in the treatment of the final stage of glaucoma. Surgery was very seldom used. During the recent years, however, in selecting cases suitable for surgery, the author had again been too ready to try surgery. Through the above study, combined with the study of the foreign literature on the

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subject, the author proposes the following preliminary suggestions regarding the treatment of severe glaucoma with serious loss of visual fields.

(1) In the cases where only a small central field of vision remains, if a side vision is large, surgery is usually more effective in stopping further advancement of the disease than non-surgical treatment. Total blindness occurred only in a very few cases. However, before the operation, the intra-ocular pressure should be reduced as much as possible so as to avoid postoperative complications. Meanwhile, a thorough physical examination is needed to see if the patient is suffering from high blood pressure or other diseases of the arteries. In some cases, treatment of the concurrent diseases must precede the eye surgery.

(2) The concrete condition of each individual case should determine the type of treatment. Some patients can withstand a certain intra-ocular pressure and the disease remains stable within a relatively long period of time. If conditions permit, medical treatment may be suitable in these cases. However, the ocular pressure must be reduced to below 30 mm, not to exceed 35 mm at most, and these patients must be put under close observation.

(3) If after positive treatment, the eyesight is still extremely bad (below 0.05), or if the iris appears to have been contracted and the patient may have concurrent cardiac disease or hypertension, then, the prognosis cannot be but very poor, and surgery can be performed only with extreme caution. It is best in these cases to use medicine instead.

(4) If the patient's eyesight is not very bad, but drugs have proved unsatisfactory for the control of the ocular pressure, then, surgery may be performed to maintain the ocular pressure to about 15 mm. After the operation, if the pressure is less than 15, no medicine is needed; if it is larger than 15, local medication should be used; if it is larger than 24, then intra-ocular medication should be applied.

(5) The slow formation of the anterior chamber or its disappearance postoperatively is extremely bad for the recovery of the visual fields. Measures must be taken to prevent this.

(6) Regardless of whether the patient has been operated on or medical treatment is being used, an ocular pressure examination should be conducted with each visit, so that the medication may be adjusted to raise the C value or to reduce the P_0/C value.

While preparing for this article, the author had only a few cases with not enough follow-up visits; neither did he have sufficient number of related articles for reference; he is very aware of the shortcomings and prejudices which are unavoidable under the circumstances. Corrections from his colleagues are cordially invited. (CONFIDENTIAL)

C-O-N-F-I-D-E-N-T-I-A-L

STATISTICS OF CONGENITAL CARDIAC DISEASE

(1,000 CASES ANALYZED)

Translation of excerpts of an article by Huang Ming-hsin (7806 6900 2450)*, Yu Kuo-jui (0358 0948 3843)*, Cheng Tao-sheng (6774 6670 5116)*, Liang Kuo-ts'ai (2733 0948 2088)**, Hu Li-hsia (5170 7787 7209)**, Cheng I (6774 0034) in the Chinese-language periodical, Chung-hua I-hsueh Tsa-chih (National Medical Journal of China), Vol. 49, No. 6, June 1963, pages 351-355.

Due to the advancement of cardiac surgery, most cases of congenital cardiac abnormality may now be partially or completely corrected, and the prognoses of these cases are very good. Generally speaking, those cases most frequently seen are the ones which have better chances of being cured or corrected surgically. Therefore, an understanding of the case history and condition is extremely important. So far, there have not been very many reports in China concerning congenital cardiac diseases (1-3). The following is an analysis of the 1,000 hospitalized cases from August 1957 to September 1962 in the Shanghai Municipal Chest Hospital and from January 1957 to September 1962 in Jen-chi Hospital of Shanghai Second College of Medicine (752 cases in the former, and 248 cases in the latter). We compared the initial occurrence of the disease, and offered the information for clinical reference. (CONFIDENTIAL)

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** The Cardiac Department, Shanghai Municipal Chest Hospital

C-O-N-F-I-D-E-N-T-I-A-L

EFFECT OF ULTRA-VIOLET RADIATION ON THE SCAVENGING MECHANISM OF THE RETICULO-ENDOTHELIAL SYSTEM

Translation of excerpts of an article by Ch'en Ta-kuang (7115 6671 0342), Yeh Kuei-hsiang (5509 6311 4382), and P'eng Hsiu-shan (1756 4423 1472) of the Therapeutic Division, Inner Mongolia Autonomous Region Hospital, in the Chinese-language periodical, Chung-hua I-hsueh Tsa-chih (National Medical Journal of China), Vol. 49, No. 6, June 1963, pages 356-359.

Ultra-violet radiation is being used, of late, more and more for the treatment of infections, especially the coccus type infection against which it has been found to be very effective. However, we do not have sufficient understanding of the anti-inflammation mechanism of ultra-violet radiation. We used it on test tubes of *Staphylococcus aureus*, to prove that it has no bactericidal properties. Most scientists believe that the anti-inflammation function of ultra-violet radiation lies in the increased bacterial resistance of the organic body. Therefore, the study of the important part of the defense mechanism of the organic body -- the reticulo-endothelial system and its reaction under the stimulation of ultra-violet radiation should be very meaningful.

There are many ways of studying the mechanism of reticulo-endothelial system. One way is to use Congo red [a certified biological stain] to test the scavenging ability of the phagocytic cells of the reticulo-endothelial system. The amount of the dye scavenged and the rate of its clearance in the blood will to a certain extent demonstrate the condition of the reticulo-endothelial system.

Experimental Method and Materials

We experimented with 166 healthy rabbits, weighing 1.2-2 kg each. All of them were fed on a normal diet. On the day the experiment was to begin, the rabbits were injected intravenously with 50 mg/kg of 1% congo red solution. A Sieman brand therapeutic instrument was used for ultra-violet radiation. The wavelength was 6 m, and the voltage was 14-20.

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The animals were kept in a specially made wooden cage. A hole 5 x 8 cm in size was made on each side of the cage corresponding to the region of the animal's abdomen. The electrodes covered an area of 64 sq. cm.

During the treatment, the air space was 3 cm, the dosage was slight, and the room temperature was 15-20°C. The body temperature of the animals was taken with an electric thermometer, inserted 2 cm in the rectum. During each exposure to radiation, the body temperature of the animals was not permitted to rise more than 1°C. Each exposure lasted 10 minutes, and was continued for 5 days. The congo red was administered on the 6th day so as to observe the result of the radiation therapy.

Summary

After 5 days of small doses of radiation exposure on the sides of the animal's abdomen, there is a definite change in the function of the reticulo-endothelial system. Within 24 hours after the foreign body has entered the organism, the increased capacity of the reticulo-endothelial system was detected primary in the liver, although the increase was rather small. The two indexes (the Congo red index and the Benacerraf's K value) which indicate the function of the reticulo-endothelial system with regard to the blood did not show obvious change. After 24 hours, the scavenging function of the liver and the spleen showed obvious improvement, especially that of the spleen. Therefore, we may explain the function of the anti-inflammation mechanism of the ultra-violet radiation in terms of the increased function of the reticulo-endothelial system during the later period (24 hours afterwards). (CONFIDENTIAL)

PRIMARY OBSERVATIONS OF THE EFFECT OF BITIN* FOR
THE TREATMENT OF HUMAN INFECTION WITH CLONORCHIS SINENSIS

Translation of excerpts of an article by Chung Hui-hu (6945 8409 3275), Chou Yung-ying (0719 3057 3853), Ts'ao Wei-chi (2580 4850 7221), Mao T'eng-shu (3029 3326 3219), K'o Hsiao-ying (2688 1420 5391), Wang Yu-pu (3769 1342 6752), T'ien Chi-/illegible7(3944 0679 ?), Kuo Meng-p'u (6753 1322 3877), and Ch'en Shu-en (7115 3219 1869) of the Peking People's Hospital of Peking College of Medicine, and Peking Sino-Soviet Friendship Hospital, in the Chinese-language periodical, Chung-hua I'hsueh Tsa-chih (National Medical Journal of China), Vol. 49, No. 6, June 1963, pages 360-363.

A Japanese scientist first discovered Bitin (Bithionol, also called Bitin) to be specially effective for parasitic infections of domestic animals. Yokogawa and co-workers used it for the treatment of patients suffering from lung fluke diseases and discovered it to be very effective. According to our experience of its use since 1961 for the treatment of lung fluke diseases, our conclusion confirms that of Yokogawa (these cases are reported in a different article). This article is a report of the eight cases of liver fluke [*Clonorchis sinensis*] infection treated with Bitin.

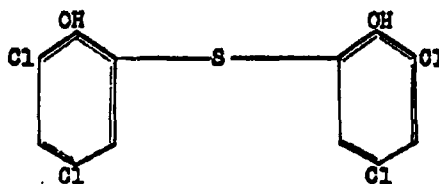
Clinic Materials and Method of Treatment

(1) Among the eight patients, 3 are female and 5 are male. In some cases the infection has lasted more than 20 years; in others, it has been 7-8 years.

(2) The new medicine used for treatment of these cases is a Japanese product called Bitin, the chemical name of which is 2,2-thiobis (4,6-Dichlorophenol), the same as a Chinese product of that name. Its chemical structure is as follows:

* Bitin corresponds with the 2,2-thiobis (4,6-Dichlorophenol) produced in China.

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The medicine was given in alternate days, the adult dosage being 3 g (for either adults or children, the dosage may be calculated as 50-60 mg/kg of body weight.) This amount was given in three doses. Four of the cases were later taken off this medicine and were treated with chloroquine instead.

(3) This group of patients were only mildly infected. It was not easy to detect ova in the stools. Diagnosis depended largely on the ova of *C. sinensis* of the bile examination method which we have initiated. For the purpose of long range observation of the effectiveness of the treatment, after being released from the hospital, the patients' bile and their general health conditions should be examined periodically.
(CONFIDENTIAL)

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NEW MEDICATION FOR THE TREATMENT OF
INTERNAL HEMORRHOIDS*

Translation of excerpts of an article by Lu Ch'i
(7120 3823) of the Graduate Study Group for Surgery
and the Rectum Surgery Division of the Hospital of
Chekiang University of Medicine, in the Chinese-language
periodical, Chung-hua I-hsueh Tsa-chih (National Medical
Journal China), Vol. 49, No. 6, June 1963, pages 364-367.

This medication treatment for internal hemorrhoids has been widely
in use during the recent years. Generally, it is considered to have the
following advantages:

- (1) Its simple operation is easy to learn and to master.
- (2) It is very effective. Within the short duration of the
treatment, normal work schedule and daily living are seldom interfered
with.
- (3) The treatment is very inexpensive, and not painful; therefore,
it is easily accepted by the patients.

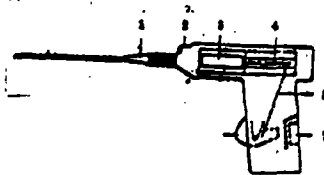
However, at present, there are still a few problems to be solved
regarding this method of treatment. For example, ways must be found to
reduce the toxic effects of the medication, and the method of dispensing
the medicine should be improved also. For the purpose of easy, accurate,
and bacteria free operation, a new electrical dispensing instrument has
been designed. It has been tried clinically from March of 1959 to Decem-
ber of 1961 with 558 patients and has been found to be obviously effective.
We present the related information as follows:

* This article was originally a paper read before the Surgical Conference
of the Annual Meeting of the Medical Sciences, 1961 for Chekiang Province,
held in February of 1962.

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C-O-N-F-I-D-E-N-T-I-A-L

The design of this electrical dispensing instrument makes use of the torque theory of electric magnetic field. The electric source is 220 volts. For the sake of safety a transformer is used, and there is a mechanism to adjust the intensity of the electric magnetic field. The magnetomotive force varies between 150 volts and 300 volts. (See figure below)



Electrical dispensing
instrument

- 1 - Detachable needle
- 2 - Light bulb
- 3 - Magnetic coil (No. 39,
6,000 coils)
- 4 - Cylinder or piston
(attached to the needle)
- 5 - Spring (to pull the cylinder
backward)
- 6 - Manual switch
- 7 - Electric switch

Summary

(1) From March of 1959 to December of 1961 the author discontinued the use of arsenic trioxide and selected four new prescriptions for the treatment of internal hemorrhoids, and designed an electrical medicine dispensing instrument which was used to treat 558 cases during that period. Of the 558 cases, 489 cases were cured (87.6%), and 34 cases were improved (6.1%). The prescriptions were ineffective for 10 cases (1.8%). The result of the treatment was unknown in 25 cases (4.5%). An analysis was presented to show the reactions to the medication, the complications, and the conditions for which this treatment may be considered suitable. This article emphasized the theory of this new treatment, and the problem of the complications it may bring.

(2) A description of the new prescriptions and the electrical dispensing instrument. (CONFIDENTIAL)

C-O-N-F-I-D-E-N-T-I-A-L

THREE CASES OF ARACHNOID PSAMMOMA IN
THE CAVERNOUS SINUS

Translation of excerpts of an article by Tung-Min-sheng (5516 3046 5116) of the Graduate Study Group of Ear, Nose, and Throat Department, Honan College of Medicine, in the Chinese-language periodical, Chung-Hua I-hsueh Tsa-chih (National Medical Journal of China), Vol. 49, No. 6, June 1963, pages 368-369.

Summary

These three cases of arachnoid psammoma are all related to the nasal sinuses. The condition makes it very easy to have a wrong diagnosis. We had to rely upon both x-ray and the puncture method. To avoid recurrence, there must be adequate local removal of the sand-like tissue and the tumor linings. The location of the tumors suggests that the disease is directly related to the dura mater. Aside from one case of external trauma, the cause of the disease is unknown. (CONFIDENTIAL)

C-O-N-F-I-D-E-N-T-I-A-L

PNEUMOARTHROGRAPHY AND EXPERIENCE OF ITS
APPLICATION IN ESOPHAGEAL CANCER

Translation of excerpts of an article by Huang Ti-sheng (7806 6611 3932) and Chiao Yun-sheng (3542 0061 3932) of the Radiology Department, First People's Hospital, Mienyang Special District, Szechwan, in the Chinese-language periodical, Chung-hua I-hsueh Tsa-chih (National Medical Journal of China), Vol. 49, No. 6, June 1963, pages 370-372.

Summary

(1) This article reports the clinical experience of the application of pneumoarthrography of 30 cases in this hospital. There was not one case of serious complications. There is also in this article an explanation of the method of applying this technique to examine the sternum and the thoracic vertebrae through the ribs.

(2) Judging from their clinical experience with this technique, the authors believe it to be very helpful in the diagnosis of the diseases of diaphragmatic hiatus, the pulmonary region, the esophagus, and the cardiac arteries. In chest surgery, this technique may reduce the necessity of exploratory operations as well as increase the possibility of surgical treatment.

(3) The authors believe the direct single puncture method is by far the best; however, more research and study are needed for better selection of the air pathways. (CONFIDENTIAL)

C-O-N-F-I-D-E-N-T-I-A-L

BACTERIOLOGICAL STUDIES IN THE DIFFERENTIATION
OF TUBERCLE BACILLI OBTAINED FROM PATIENTS

- ESPECIALLY TO DIFFERENTIATE THE HUMAN-TYPE
AND THE BOVINE-TYPE -

Translation of excerpts of an article by Cheng I-Tsung (6774 5065 1350), Kuo Chun (6753 6874), Yen Pang-shou (7051 6721 7445), of the Division of Bacteria Immunology, Peking Institute of Tuberculosis, in the Chinese-language periodical, Chung-hua I-hsueh Tsa-chih (National Medical Journal of China), Vol. 49, No. 6, June 1963, pages 377-382.

There has been no report in this country, concerning the identification of the acid-fast group of bacteria, especially the problem of differentiating the human-type and the bovine-type *Bacillus Tuberculosis*. During the recent years, since Konya's report on the effectiveness of the nicotinic acid test, some new progress has been made in this field. There have been many foreign reports since then; however, opinions are by no means uniform with regard to the usefulness of this test. Opinions also differ as to the application of animal experiments for the differentiation of human-type tubercle bacilli and other mycobacteria. Therefore, we feel there is a need for further study. Most recently, many scientists believe that drug resistance has a definite effect on the identification of bacteria. Hence, we must also consider the problem of drug-resistant strains.

From the July of 1957 to the September of 1958, while the Division of Contagious Diseases of this institute was conducting a survey of the inhabitants of a certain section of Peking, we selected 251 of their patients who had received no medication. From the phlegm of these patients, we isolated 38 strains of yellow colored acid-fast mycobacteria and 50 strains of so-called "*Bacillus Tuberculosis*." With these 50 strains of "*Bacillus Tuberculosis*" we conducted tests in animals, nicotinic acid metabolism tests, and drug-resistant test, with emphasis on the problem of differentiating the human-type and the bovine-type tubercle bacilli. At

the same time, we were also conducting a study on the relationship between primary drug-resistance and pathogenic properties. This article is a report of the bacteria identification study only.

Summary

(1) We isolated 50 strains of the so-called "Bacillus Tuberculosis" from the phlegm specimens of 251 patients, and experimented with them on rabbits, guinea pigs, and mice, and at the same time, they were also used in drug-resistance tests and nicotinic acid tests. We identified 3 of the strains (6%) as the bovine-type tubercle bacilli, 44 strains of the remaining 47 as the human-type bacillus tuberculosis, while the other 3 strains are drug-resistant with very weak pathogenic properties. We had considerable difficulty in identifying the last three strains, and failed to make a final conclusion on them.

(2) With the animal tests, we used disease indices and cultural characteristics as the standard of identification. We found the test to be quite accurate, and we concluded that an intravenous injection of 10^{-2} mg in rabbits (or a hypodermic in guinea pigs) may be used for differentiating the human-type and the bovine-type tubercle bacilli.

(3) In order to avoid the effect of drugs on the pathogenic properties of the mycobacteria, we selected as objects of study those patients who had received no drugs. However, among the strains of bacteria we isolated, there were still eight strains (16%) which were drug-resistant. Three of the eight strains had very weak pathogenic properties. This fact must have had some effect on our work of differentiation.

(4) The results of our nicotinic acid tests showed considerable deviations. We believe that this test may be used only as a reference for diagnostic purpose.

(5) Aside from the human-type and the bovine-type, we also isolated 38 strains of yellow-colored acid-fast bacteria (42.04%). The fact that these were considered as bacillus tuberculosis on the smear tests is very worthy of attention.

(6) Among the strains we isolated, we did not discover any avian-type.

While the original materials of this article were being analyzed, the chief of the Division of Contagious Diseases of this Institute, Wang Chung-jen (3769 1813 0088) and Dr. Hsueh Man-hsiang (5641 3341 7449) offered us valuable assistance. We are grateful to them. (CONFIDENTIAL)

(This article was received on
12 November 1962.)

C-O-N-F-I-D-E-N-T-I-A-L

THE REPAIR PROCESS OF EXPERIMENTAL

BONE FRACTURE

- A PRELIMINARY OBSERVATION FROM THE VIEWPOINT OF HISTOLOGY AND HISTOL-CHEMISTRY -

Translation of excerpts of an article by Ling Li-li (0407 0536 4539), of the Graduate Study Group of Anatomy and Pathology of the Shanghai Second Hospital, Ch'ai Pen-p'u (2693 2609 5455) of the Shanghai Institute of External Injuries, in the Chinese-language periodical, Chung-hua I-hsueh Tsa-chih (National Medical Journal of China), Vol. 49, No. 6, June 1963, pages 383-386.

Through the study of the repair process of experimental bone fracture in rabbits, the authors gained some new viewpoints regarding the mechanism of bone repair. Corrections from our colleagues are cordially invited.

Summary

(1) There should be a new evaluation of the bone forming function of fibroblasts and histiocytes in the process of bone repair following a fracture.

(2) When the method of histol-chemistry is applied to observe the healing process, we discovered six different substances at the site of fracture: they are the "silent" or mature bone, the trabecula of the new bone, the matured substance of the trabecula of the new bone, the soft-bone type callus, the soft-bone in the process of ossification, and the dead bone.

(3) The dead bone may be resorbed through the activities of the new osteoclasts, and may be replaced by the new bone. The resorption is not necessarily accomplished through the activities of the fractured bone. It is possible that the new osteoclasts contain a certain enzyme which is capable of synthesizing as well as dissolving bone substances. Further study is required to verify this point of view. (CONFIDENTIAL)

THE EFFECT OF CERTAIN WILD PLANTS AND FERTILIZERS
IN THE KILLING OF THE GENUS LEPTOSPIRA OF ORDER SPIROCHETES

Translation of excerpts of an article by Wang Ch'u-ch'un (3769 0575 5028), Lu Shu-ch'u (4151 2562 0443), Ch'en Jui-chen (7115 3843 3791), under the direction of Wei Hsi (7614 2569), in the Chinese-language periodical, Chung-hua I-hsueh Tsa-chih (National Medical Journal of China), Vol. 49, No. 6, June 1963, pages 393-396.

The *Leptospiras* are one of the natural sources of infectious diseases. Pollution of water by infected rats, domestic, and other animals serves to transmit the disease to man. The accumulated water in the rice paddies is a major source of this disease. While rice paddies are so widely distributed in the southern part of our country, disinfecting the paddy water becomes an important measure for the control of these bacteria. With the goal of combining disinfection and fertilizer application in mind, we selected a few kinds of wild-grown plants and fertilizers to test their effect on the various species of the genus *Leptospira*.

Experimental Materials and Methods

(1) The species of the genus *Leptospira*: The 8 species of the genus *Leptospira* are: *L. pomona*; *L. heldomadis*; *L. autumnalis*; *L. grippotyphosa*; *L. australis* B; *L. grippotyphosa bovis* Lin 1 (to be called *L. Lin 1* in the rest of this article); *L. autumnalis* Lin 4 (to be called *L. Lin 4* in the rest of this article); and *L. australis* B. 14. The first five are standard species, being preserved through test tube culture; the last three are the toxic species isolated in this country and are being preserved by guinea pigs.

(2) The wild-grown plants: All of the samples of the seventy-six species had been selected from those exhibited in the various museums in Peking during the National Patriotic Public Health Movement of the winter of 1958. Most of them were cooked in water. The density of the solutions was about 10% (with some variations). The solution was not treated before being used in the experiments. There were also a few powdered substances,

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leaves, bark, roots and stems in which cold water 10 times of the weight of the plants was added. The mixture was then well shaken and left to soak in a box of 30°C temperature for 24 hours before the solution was used.

(3) All of the 53 kinds of samples were taken from Peking Institute of Soil and Fertilizers, and most of them were in the aforementioned exhibit. All of the samples were made into 10% solution by adding cold water and left to soak for 30 minutes in 37-40°C temperature.

(4) Test method: Each of the sample solutions was diluted to various densities and put in separate test tubes, about 0.1 ml for each tube. Then, to each tube add fresh and live strains of *Leptospiras* in culture medium, about 0.1 ml to each tube. After the tubes were well shaken, they were left to stand for 18-24 hours in 28-30°C temperature. Then, drops of the mixture were taken out to be examined under a microscope.

Conclusion

(1) For this project, a total of 75 species of wild-grown plants were tested, and 11 of them were found to be able to kill the various strains of *Leptospiras*, with various degrees of effectiveness. They are: *Fatona pilosa*, *Ilex macropoda*, *Selaginella involvens*, *Eucalyplus globulus*, *Lysimachia clethroides*, coniferous *Eucalyplus*, Mao-t'ao leaves, Shan-ma-liu, Pa-wang-pien, Tou-niu, and Fei-chu-miao. [The last five species have not been identified yet.]

(2) Of the 53 types of fertilizers we tested, eight of them were found to be effective in various degrees. They are: ferrous persulphate; the tree-essential fertilizer, eight-in-one fertilizer, five-in-one fertilizer, acid calcium perphosphate, lime nitrate, potassium chloride, and ammonium sulphate [arcadian].

(3) There is also a discussion of the effectiveness of these wild-grown plants and fertilizers for disinfecting the various species of *Leptospiras*, the prospect of their actual application as disinfectants, and the related problems which require future study. (CONFIDENTIAL)

(This article was received
on the 11th of September)

THE SIGNIFICANCE OF THE BOVINE TYPE TUBERCLE

BACILLI OBTAINED FROM HUMANS

Translation of excerpts of an article by Hsieh Shao-wen (6200 1421 2429) in the Chinese-language periodical, Chung-hua I-hsueh Tsa-chih (National Medical Journal of China), Vol. 49, No. 6, June 1963, pages 397-401.

To this day, tuberculosis is still a very widely distributed infectious disease. A great number of young adults lost their ability to work because of it. In the old society, due to the cruelty of the exploiting class, the workers were always the first ones to contract this disease, and the reactionary government paid no attention to that fact. Since the liberation, the social system has been changed, and the living standard of the workers has been improved. An immunization program has been carried out for all children. The people now have a higher resistance against tuberculosis. However, with respect to the source of infection, the fast development of animal husbandry has brought to us the problem of tubercle bacilli of the bovine type. This problem has been scarcely reported in the past medical literature of this country. This issue of this magazine carries an article on the problem of differentiating the bovine-type and the human-type tubercle bacilli. It is certainly an important and timely discussion. The authors of that article spent a long period of time to study the various strains of tubercle bacilli taken from the patients and finally decided that three of the strains belonged to the bovine-type. This experiment proved the fact that the bovine-type tubercle bacilli are one of the origins of the disease of tuberculosis suffered by our people today. (CONFIDENTIAL)

DRY BLOOD-GROUP PAPERS AND GROUP-MATCHING TESTS FOR THE PREPARATION OF TRANSFUSIONS

Translation of excerpts of an article by Chou P'ing-keng (0719 3521 1649) of the 185 Hospital of the People's Liberation Army of China, in the Chinese-language periodical, Chung-hua I-hsueh Tsa-chih (National Journal of China) Vol. 49, No. 6, June 1963, page 411.

Correct identification of the blood type and the cross-matching test are important in transfusion. The standard blood plasmas are not easily preserved and a mistake in the identification of the blood type may result. In order to guarantee the safety of the recipient, a cross-matching test should be conducted before the transfusion. In those hospitals where there is no blood bank and when a large quantity of blood is needed, the cross-matching test often takes too long a time and thus the transfusion is delayed to the extent of affecting the possibility of saving the patient. The following is a method of preparing dry blood-group papers which provide a reliable and quick means of identifying the blood group, and a group-matching test which may facilitate the procedure considerably.

A. Method of preparing the dry blood-group papers

- (1) Gather together all the fresh blood that was left from the various blood tests of the day and for which the types "A" and "B" have already been identified. Keep these blood specimens in the refrigerator over night to clot. The next day isolate the serum, which is then put back in the refrigerator with a temperature of 56°C for 30 minutes.
- (2) Add 5% saline water in the proportion of 1 : 10 with the serum, then add preservative agents.
- (3) Use the normal method of drop identification. "A" type should be more than 1/80, and "B" type should be more than 1/160. All the corpuscles which match the serum are qualified.

(4) Cut filter paper in 6 mm diameter round sheets. Put 100 sheets in each penicillin bottle, then, add 1 ml of the prepared serum, and let it soak through all the sheets of paper. Then, move the papers to a bottle which is half full with calcium dichloride. Seal the bottle and wait till the papers are dry. Take them out and store them in dark places.

(5) For identifying blood types, take two sheets of dry blood-type paper, one of each "A" and "B" type. Lay the two sheets on a piece of glass, one on each end. Then drop one drop of corpuscle on each of the sheets. Use a stick to mix it, and observe while mixing. Generally speaking, five minutes of observation should be sufficient for definite identification.

These dry sheets of paper are convenient to carry on ones person. They do not spoil easily at room temperature. It has been observed that they are effective for identification purposes for more than 15 days. They are very practical for the battle front and for the hospitals which have no blood bank.

B. Group Cross-matching Test

(1) First write down the names of the people whose blood is going to be cross-matched. Then, use dry sterilized instruments to draw 3-5 ml of blood from the veins of these people and keep them separately in penicillin bottles in which a dry anti-clotting agent is kept. After thoroughly mixing the content of the bottles, pour it out and let it settle. Take the upper part of the blood plasma. Pour sufficient amount of saline water into the penicillin bottle in which there is still some left-over blood. Mix to make 2% corpuscle solution.

(2) Use as many test tubes as there are people and arranged them horizontally and vertically and number them as follows:

RS	DS ₁	DS ₂
(plasma of the recipient)	(plasma of No. 1 donor)	(plasma of No. 2 donor)
	RC (corpuscle of the recipient)	
	DC ₁ (corpuscle of No. 1 donor)	
	DC ₂ (corpuscle of No. 2 donor)	
	

Add 2 drops of plasma of the recipient to each of the first verticle row of tubes. Add 2 drops of plasma of No. 1 donor to each of the second verticle row of tubes, and so on. To each of the first horizontal rows

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of tubes add 2 drops of the corpuscle solution of the recipient. To each of the second horizontal rows of tubes, add 2 drops of the corpuscle solution of No. 1 donor, and so forth. Let it settle for 1-2 minutes, then shake the tubes back and forth for about 4 minutes. Let them stay at room temperature for 10-15 minutes before identification.

This group cross-matching method saves time and improves efficiency. It has been used clinically for five years, and we have had no accidents.

C. Important items to watch

(1) When the dry blood-group papers have been kept for a long time, they should be checked against the blood of known blood groups.

(2) When the group cross-matching method is used, it is very important to check the numbers assigned to the various people constantly and repeatedly. (CONFIDENTIAL)

(This article was received
on the 4th of September)

A SURVEY OF THE 2,6-DIMETHOXYPHENYL PENICILLIN
SENSITIVITY OF THE DRUG-RESISTANT STAPHYLOCOCCUS AUREUS

Translation of excerpts of an article by T'ung Ts'un (4574 2625), Ting Man-li (0002 2581 7787), and Fan Shao-hsia (5400 1421 7209) of the Shanghai Institute of Pharmaceutical Industries, the Ministry of Chemical Engineering, in the Chinese-language periodical, Chung-hua I-hsueh Tsa-chih (National Medical Journal of China), Vol. 49, No. 6, June 1963, page 412.

Since Batchelor and others discovered and isolated 6-amino-penicillanic acid, the condition for partial synthesis of the new penicillins has been created. 2,6-dimethoxyphenyl penicillin is a reduction product of 6-amino-penicillanic acid and 2,6-dimethoxyphenyl acid. It is also called methicillin. It can withstand the destruction of penicillium and can control or kill the strains of *Staphylococcus aureus* which produce penicillium. It thus provides condition for controlling these strains.

In order to prove the sensitivity of drug-resistant strains of *Staph. aureus* to this new penicillin, Jevons once made a survey of 5,440 strains of *Staph. aureus* in England. Of these strains, 3 had natural drug resistance to this new penicillin. Compared with the rate of 80% resistance to benzylpenicillin of the various strains of *Staph. aureus*, the new product is certainly extremely superior. Although we in China do use this new penicillin, there is indeed a need of a survey to find out the drug-resistant condition of the various strains of *Staph. aureus*.

Through the cooperation of the First Hospital of Shanghai First College of Medicine, Kuang-tz'u Hospital, and the Sixth People's Hospital, we isolated from the specimens taken from the patients, 211 strains of *Staph. aureus*, of which 60% were resistant to erythromycin, 33.7% to tetracycline, and 27.1% to neomycin. We discovered that 2 strains could grow in culture broth containing 12.5 micrograms/ml of 2,6-dimethoxyphenyl penicillin, and the two were not sensitive to 5-methyl-3-phenyl-4-1-isoxazolyl penicillin (also called Prostaphlin) either. The sensitivity of all the other 209 strains of *Staph. aureus* to 2,6-dimethoxyphenyl

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penicillin was within the 1-5 micrograms/ml limit. Following the opinion of George, we believe these two strains were naturally drug-resistant. We should notice the fact that the overwhelming majority of the strains were sensitive to this drug below the 5 micrograms/ml limit. This result of our survey corresponds with the related reports in medical literature. Although we did find two drug-resistant strains, the highest resistant density of these two strains were not above 25 micrograms/ml. This part of the result is again similar to the result of Jevons' tests. The 211 strains of Staph. aureus we tested had a resistance to above 1-100 micrograms/ml of benzylpenicillin. Some of the strains could withstand even a higher density than that. We can certainly see the different performance of the two kinds of penicillin with regard to Staph. aureus.

Of the two naturally drug-resistant strains of Staph. aureus we discovered, the No. 152 strain (Shanghai Hospital No. A-19) was also resistant to erythromycin and neomycin. It is somewhat sensitive (1.6 micrograms/ml) to tetracycline. The other strain, No. 231 (Municipal Sixth Hospital N. 5353), was resistant to erythromycin, tetracycline, kanamycin, and penicillin (all above 25 micrograms/ml). However, it is very sensitive to neomycin (0.8 micrograms/ml). Due to the fact that these two strains had different degrees of resistance to different types of antibiotics, we may be certain that they came from different sources.

Although we found that we now have about 1% Staph. aureus which are resistant to 2,6-dimethoxyphenyl penicillin, we cannot yet give statistical meaning to our survey since we have not examined a large enough number of strains. Our discovery cannot be compared with that of Jevons. Nevertheless, relatively speaking, the strains of Staph. aureus which are naturally drug-resistant must not be very many.

(CONFIDENTIAL)

(This article was received on
the 16th of October 1962)

CONFIDENTIAL

JOINT HYPERTROPHY, A PATHOLOGICAL PROBLEM

- The Disease and Its Relationship to

Terrain and Water

Translation of excerpts of an article by Li Chi (2621 0512) The Institute of Pathogenic Microbiology, China Academy of Medical Sciences, Hsiao Feng (2556 7364) of Peking Institute of Tuberculosis, the Ministry of Public Health, the People's Republic of China, in the Chinese-language periodical, Chung-hua I-hsueh Tsa-chih (National Medical Journal of China), Vo. 49, No. 6, June 1963, pages 389-392.

Although the disease of joint hypertrophy [It appears to be similar to either gout or osteoarthritis, but is not exactly the same.] has been discovered more than 100 years ago, but to this day we are still not certain of the origin, the nature, and the cause of this disease. Many problems remain to be solved concerning its nature as an infectious ailment and the course of its healing. In 1958, we conducted a survey in Huang-ling Hsien, Shensi to study its relationship to terrain and water. We offer the results of our survey as follows:

Discussion

Several theories have been offered regarding the cause of this disease. At present, the various theories in the Soviet Union may perhaps be summarized into two groups: the fungi infection theory, and the earth biochemical theory. According to the former theory, *Fussarium sporotrichiella* var. *poue* is the origin of this disease. Those who eat foods that have been contaminated by this fungus contract this disease. According to the latter theory the disease is caused by the earth biochemical characteristics of the area in which the patients reside. This disease, thus, is considered to be closely related to food, water, and soil. In Japan, the theory of a substance transpired by certain plants has also been offered

to explain the origin of this disease. (Okane, Tanaka) In China, the majority of the reports so far support the theory of fungus contaminated foods.

In the process of our survey we discovered that there is a marked difference in the rate of this disease among the inhabitants of different areas with different types of terrains. The rate is lower for the inhabitants of the villages with higher terrain. Those who live in the furrows and lowlands have the highest rate of contracting this disease. Among the inhabitants of the same type of terrain who obtained their drinking water from different sources, the disease rate is also not the same. Those who obtain their drinking water from natural sources have a higher rate than those who obtain it from the deep wells. However, those who live in the same river valley but obtain water from different sources have similar rates of contracting this disease. This fact seems to show that the two factors of terrain and water are so closely related that when the terrain is extremely low, the difference in the source of water has been overcome by the function of the natural hydrography.

The factors of terrain and water have been mentioned by other scientists before. Zogravskii and others reported a survey of the Osudog mountain region of Northwest Korea. The 600 inhabitants of Chin-pen Village are distributed on the banks of a stream and another 1,000 live on the slopes where there is no stream (Corresponding to the difference in terrain between the mountain slope and the furrows in our survey). The 1,000 who live on the slopes drink rain water and snow (natural water, corresponding to our stream water.) The village has 80 people who have contracted this disease, and except for three cases, all of them live on the slopes and drink natural water.

In the Northeast of China, the inhabitants of a village with a high rate of this disease were given water from a village where there is none, and after a while, the patients showed various degrees of improvement. Recent surveys have repeatedly confirmed the close relationship between this disease and the drinking water.

The theory of fungi contamination has the following difficulties:

(1) We failed to find different environmental conditions for the growth of fungi in the various areas of this hsien [Huang-ling]. It is difficult to find any difference among these areas in the methods people use to produce crop plants or to store food; neither could we see any climatic difference.

(2) In the process of our survey we found no crop plants or food that are related to the fungus, *Fussarium sporotrichiella* var. *pouei*; neither did we detect any related disease in animals.

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(3) The disease involves various joints in the following order: the fingers, the knee, the ankle, the wrist, and the toe.

(4) The distribution of the villages where this disease is found is related to the terrain. Those with the highest and the medium high rates of this disease are usually located in the low areas of the furrows, while those with no or very few cases of this disease are located on the plains.

(5) Among the inhabitants of the same terrain but obtaining drinking water from different sources, the rate of this disease is different. The rate is lower among those who obtain drinking water from the deep wells, while the rate is higher among those who obtain drinking water from such natural sources as the furrows and the hollows.

(6) A discussion of this disease was presented based on the information obtained from this survey.

Note: Comrades Yin Hui-min (1438 1920 3040), Wu Ai-ti (0702 1947 1229), Liang Fu-i (2733 1381 5030), Chang Shui-hui (1728 3055 5478), Chang Ch'iao-feng (1726 1564 7685), Liu Yen-ch'ing (0491 1693 3237), Chao Chi-wne (6392 1323 2429), Tu Shih-lieh (2629 1102 3525) participated in the survey. During the survey, we received tremendous assistance and cooperation from Huang-ling-hsien People's Hospital and the guidance from Professor Su Te-lung (5685 1795 7127) in the course of preparing this article. We wish to thank them all. (CONFIDENTIAL)

* * *

UNCLASSIFIED
Central Intelligence Agency



Washington, D. C. 20505

7 September 2004

Ms. Roberta Schoen
Deputy Director for Operations
Defense Technical Information Center
7725 John J. Kingman Road
Suite 0944
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

A handwritten signature in cursive script, reading "Sergio N. Alcivar".

Sergio N. Alcivar
Chief, CIA Declassification Center,
Declassification Review and Referral
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)

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Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed
by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Fldr	Doc	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0343932	78-03117A	213	1	18	5117	Scientific Information Report Chinese Science (34)	10/22/1963	89	Approved For Release	3/29/2004
AD0344702	78-03117A	214	1	21	5149	Scientific Information Report Chinese Science (35)	11/4/1963	133	Approved For Release	3/29/2004
AD0344965	78-03117A	215	1	4	5163	Scientific Information Report Chinese Science (36)	11/7/1963	133	Approved For Release	3/29/2004
AD0345229	78-03117A	215	1	23	5182	Scientific Information Report Chinese Science (37)	11/18/1963	179	Approved For Release	3/29/2004
AD0345750	78-03117A	216	1	20	5209	Scientific Information Report Chinese Science (38)	12/11/1963	174	Approved For Release	3/29/2004
AD0344419	78-03117A	217	1	20	5241	Scientific Information Report Chinese Science (39)	12/27/1963	75	Approved For Release	3/29/2004
AD0346493	78-03117A	218	1	21	5277	Scientific Information Report Chinese Science (40)	1/10/1964	115	Approved For Release	3/29/2004
AD0346725	78-03117A	219	1	27	5320	Scientific Information Report Chinese Science (41)	1/27/1964	78	Approved For Release	3/29/2004
AD0347051	78-03117A	220	1	25	5359	Scientific Information Report Chinese Science (42)	2/6/1964	78	Approved For Release	3/29/2004
AD0347849	78-03117A	221	1	39	5407	Scientific Information Report Chinese Science (43)	3/2/1964	174	Approved For Release	3/29/2004
AD0347929	78-03117A	222	1	25	5438	Scientific Information Report Chinese Science (44)	3/5/1964	104	Approved For Release	3/29/2004
AD0348352	78-03117A	223	1	20	5479	Scientific Information Report Chinese Science (45)	3/20/1964	117	Approved For Release	3/29/2004
AD0349491	78-03117A	225	1	18	5560	Scientific Information Report Chinese Science (46)	4/24/1964	118	Approved For Release	3/29/2004
AD0349657	78-03117A	225	1	34	5581	Scientific Information Report Chinese Science (47)	5/4/1964	98	Approved For Release	3/29/2004
AD0332751	78-03117A	183	1	29	3940	Scientific Information Report Electronics And Engineering (22)	10/19/1962	68	Approved For Release	3/29/2004
AD0333146	78-03117A	186	1	20	4041	Scientific Information Report Electronics And Engineering (23)	11/23/1962	73	Approved For Release	3/29/2004
AD0334103	78-03117A	188	1	37	4136	Scientific Information Report Electronics And Engineering (24)	12/20/1962	62	Approved For Release	3/29/2004
AD0334236	78-03117A	190	1	40	4217	Scientific Information Report Electronics And Engineering (25)	1/22/1963	48	Approved For Release	3/29/2004
AD0334769	78-03117A	193	1	39	4339	Scientific Information Report Electronics And Engineering (26)	2/28/1963	68	Approved For Release	3/29/2004
AD0335480	78-03117A	196	1	17	4436	Scientific Information Report Electronics And Engineering (27)	3/21/1963	95	Approved For Release	3/29/2004
AD0336306	78-03117A	199	1	2	4538	Scientific Information Report Electronics And Engineering (28)	4/25/1963	69	Approved For Release	3/29/2004
AD0332433	78-03117A	183	1	35	3946	Scientific Information Report Organization And Administration Of Soviet Science (5)	10/22/1962	60	Approved For Release	3/29/2004